DEVELOPMENT OF A STRUCTURED SELECTION INTERVIEW FOR STAFF PHARMACISTS

by

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ABSTRACT

This study outlined procedures for the development of a structured selection interview that could be used in the hiring of pharmacists. Steps in the development of the interview included establishment of minimum job requirements and performance of a job analysis of the pharmacist position. The preceding were done to determine job duties and their relative importance. Job-related questions to be used in the selection interview were composed and weighted from the data collected in the job analysis. A system for scoring the interview was developed as well as a set of records for documentation of the interview results. In addition, a training program was outlined that would instruct interviewers of the selection interview procedure, the position for which they are interviewing, and the essentials of objective data collection techniques. Of importance, the project produced a practical set of procedures that could be followed by pharmacy directors in the development of a selection interview, tailored to their particular department.

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DEFINITION OF TERMS

To assist the reader with the terminology of this paper the following definitions are presented:

adverse impact - Employer practices which result in disproportionate hiring or promoting of persons of minority groups, intentional or not.

Civil Rights Act Title VII - The Act forbidding discrimination against individuals in employment settings on the basis of race, color, sex, national origin or religion.

contrast effect - After talking with several poor applicants consecutively; the interviewer gives undeservedly high ratings to a mediocre applicant.

Equal Employment Opportunity Commission (EEOC) - The agency of the federal government charged with the interpretation and enforcement of Title VII of the Civil Right Act.

halo effect - the interviewer sees an applicant as "all bad" or "all good" because undue weight is given to one characteristic, overshadowing all other characteristics.

job analysis - A detailed statement of work behaviors and other information relevant to the work.

job description - A general statement of job duties and responsibilities.

leniency - The interviewer gives all applicants high ratings.

performance appraisal - An evaluation performed by supervisors and peers of the job behavior exhibited by an employee.

reliability - The agreement between two or more evaluators on a particular candidate in the interview process.

stereotype - A fixed or conventional conception of a person or group held by others which allows for no individuality.

structured or patterned interview - Applicants are asked a common set of questions and each applicant is handled in a uniform manner.

strictness - The interviewer gives all applicants low ratings.

talkative interview - When interviewers spend more than half of the interview time talking.

Uniform Guidelines for Employee Selection Procedures - Guidelines adopted by the Equal Employment Opportunity Commission, Department of Justice, Civil Service Commission, Office of Federal Contract Compliance Program and the Department of Labor because of the Federal government's need for a uniform set of principles on the question of tests and other selection procedures. They are designed to assist organization in complying with requirements prohibiting discriminatory practices.

validity - The establishment of the relationship between a test instrument, or other selection procedure, and performance of the job. Validity is considered to be determined from three aspects: (1) criterion related validity: a selection procedure is justified by a statistical relationship between scores on a test or other selection procedure that measures job performance; (2) content validity: a selection procedure is justified by showing that it representatively samples significant job dimensions; (3) construct

validity: identifying the psychological trait which underlies successful performance on the job and then devising a selection procedure to measure the presence or degree of the trait.

weighted application blank - An application blank to which weights are assigned to various biographical data or personal history items such as age, marital status, education, etc., found on a typical application blank. These weights are assigned to each item in accordance with its ability to discriminate between groups such as good vs. poor employees, terminated vs. present employees, etc.

CHAPTER I

INTRODUCTION

Management responsibility involves planning, organizing, directing, and controlling the resources of an organization to reach established goals. Of all management decisions, personnel selection is considered to be the most critical for maintaining the organization's vitality. Personnel selection decisions include hiring, transferring, promoting and terminating employees. Under current economic conditions, a company cannot afford the luxury of making a poor employee selection decision. The hidden costs of such a decision are: job dissatisfaction, poor co-worker morale, absenteeism and turnover. These costs can far exceed the identifiable personnel expenses for salary and benefits.

In view of the critical nature of the selection decision, organizations have taken steps to minimize the possibility of making a poor selection. Some of the tools developed to predict employee performance are tests of intelligence, character, physical stamina, honesty and many other employment characteristics (Reilly and Chao, 1982; Wagner, 1949). Employment testing has been widely used in many industries for years but three major developments in the legal arena, over the last two decades, have severely restricted a firm's ability to do employment testing. The first of these developments was the enactment of the Civil Rights Act of 1964 and the 1971 amendment of Title VII of that Act. This Act prohibits employment discrimination against current and potential employees on the basis of race, color,

religion, or national origin. Since 1964, several other groups have been granted protection as a result of congressional legislation. Among these added groups are the handicapped (Vocational Rehabilitation Act of 1973), veterans of the Vietnam conflict (Vietnam Veterans Readjustment Act), and individuals between the ages of 40 and 70 (Age Discrimination in Employment Act of 1967 and 1978) (Miller, E.C. 1980). Second, the Civil Rights Act was expanded by court cases like Griggs vs. Duke Power Company (1971) and Abemarle Paper Company vs. Moody (1975). In Griggs vs. Duke Power Company, the Supreme Court ruled that the use of a general intelligence test and the use of a mechanical aptitude test were illegal. This ruling was based upon the assumption that their use resulted in more whites than blacks being hired (adverse impact) and upon the fact that the tests had not been shown to be valid. The net effect of cases like these is that tests and other selection criteria are prohibited if they have an adverse impact on protected minorities and are not directly job related. The Equal Employment Opportunity Commission, the enforcing arm of these laws, published the Guidelines on Employee Selection Procedures (Federal Register, 1970) and in 1978 joined with the Civil Service Commission, the Department of Labor and the Department of Justice and published the Uniform Guidelines on Employee Selection Procedures (Federal Register, 1978). These guidelines define stringent procedural and documentation requirements for the use of employment tests in organization settings to insure the fairness of selection devices. Simply stated, the Guidelines requirement is: where a selection procedure results in the hiring of applicants in a protected group, at a rate that is less than 80 percent

of the rate of the unprotected group, the selection procedure must be validated. Where no adverse impact exists, no determination of selection instrument validity is required (Trattner, 1978).

The implication of all these legal developments is that test users must now be knowledgeable about the technical aspects of personnel selection in order to protect themselves from allegations of employment discrimination. Such allegations could be brought against them if an applicant could show that the selection tests were not valid, not job-related or had an adverse impact on protected minority groups. Determination of the validity of new and existing selection procedures and compliance with Equal Employment Opportunity Commission (EEOC) guidelines is costly and difficult. This difficulty has forced firms to abandon many forms of employment testing due to the expense and tremendous time commitment required to demonstrate test validity. With this departure from testing, greater reliance was placed on information available from the application blank references and the selection interview. It seems to have been overlooked that these information sources are considered by the EEOC to be tests just as the other abandoned tests are and are therefore subject to the same validation requirements.

When put to the legal test it has been difficult to defend a charge of discrimination or show the job relatedness of application blanks, reference audits and selection interviews. The vulnerability of the interview was underscored by a court case that struck down one company's interviewing methods. In this case, EEOC vs. Detroit Edison (1975), a federal court of appeals upheld a lower court decision stating that heavy reliance on the subjective judgements of interviewers was

unlawful. In its 1978 publication, Guidelines of the Employment Selection Process, the Equal Employment Opportunity Commission contended that employment tests have traditionally been used to eliminate, at an early stage, unsuited or unqualified persons. They went on to point out that companies use employment tests in such a way as to restrict or deny employment opportunities for women and minority groups. The EEOC further stated that the law prohibits the use of all pre-employment inquiries and qualifying factors which disproportionately screen out members of minority groups. These inquiries and qualifying factors must be shown to be valid predictors of successful job performance or to be justified by "business necessity" (Bona Fide Occupational Qualifications) in order to be used. Suits alleging discrimination on the basis of qualifying factors have brought managers to the painful awareness of the subjective nature of the pre-employment inquiries utilized by their firms.

Recent publications by Decker (1981) and Ullens and Davis (1981) show the extent to which the interview is currently used in the selection process by referring to it as "the most widely used selection device" and as "universally used." Employers seem to ignore the fact that the tests abandoned as too costly and time consuming to validate are grouped with the tests they "universally" use as a selection tool. To meet the requirements of the legal developments described previously, it is necessary to demonstrate that the selection decision is based upon job-related criteria. This necessitates a collection of objective information about applicant qualifications, knowledge, skills and abilities necessary to perform the job in question. Eliminating the collection of subjective information and interviewer judgements not only

fulfills the requirements laid down by the EEOC but also provides the added benefit of a solid foundation upon which the selection decision is based. Such a foundation is necessary if an organization's selection process is to withstand the legal scrutiny of today's employment environment.

Statement of the Problem

The interview has traditionally been used by employers as the primary selection tool. In fact, the interview has come to be used in an almost ritualistic manner, with interviewers relying heavily upon intuition and experience for interview content and format. As commonly conducted, "unstructured" interviews do not meet essential objectives of the selection process such as uniformity in questioning, systematic data collection, interviewer objectivity, interviewer reliability, and legal accountability. The pharmacy literature indicates that interviewing is also the method pharmacy managers depend upon when making selection decision. There remains the need to document the development of the structured selection interview in hospital pharmacy. It is toward this need that this thesis is directed.

Purpose of the Study

The purpose of this study was to develop a structured selection interview for hiring staff pharmacists. The objectives of the study were: 1) to develop a set of job-related questions specific to staff pharmacist positions; 2) to develop a data collection instrument, used in conjunction with the interview, to provide for structure in data recording; 3) to establish, by means of a cohort group, minimum

competency standards for the staff pharmacist position; 4) to prepare an instrument for collection of interviewer evaluations of each applicant, to be used in determining if the structured process achieved interviewer reliability; 5) to develop a second data collection instrument that compares the interview scores of applicants hired with performance evaluation results and thereby assess interview validity.

Importance of the Study

A poor selection decision can, in the worst case, result in the hiring of an employee whose job performance is inadequate. One person doing poor work usually has an effect on the other people in the workplace. In the extreme case, poor performance on the part of a single employee can lead to deleterious consequences for the entire organization. Regardless of the outcome, poor selection decisions are costly, particularly in view of recent emphasis on cost containment in the health care industry. Efforts must be made to minimize costs resulting from an inadequate hiring process. If using the structured selection interview increases the probability of identifying applicants capable of performing adequately as staff pharmacists, potential cost benefits could result for the pharmacy department through reduced absenteeism, turnover, improved pharmacist performance and department morale.

CHAPTER II

REVIEW OF THE LITERATURE

Reviewing the pharmacy literature pertaining to employee selection produced only a few, very basic, how-to guides (Armadio, 1981; Grieshaber and Grieshaber, 1983; Huffman and Roberts, 1982; Januska and Marigold, 1981; Jessup-Petticrew, 1980; Levoy, 1978; and Mahoney, 1980) and editorials commenting on the importance of this management function (Davis, 1978 and 1983). Human resource researchers have examined, on both the micro- and macroanalytical levels, the various aspects of the selection interview.

Initially, the research of the selection process sought out objective methods to predict job performance. Efforts to assess applicant job knowledge, skills and abilities resulted in the development of a variety of tests that were felt to be indicators of honesty, aptitude, proficiency, and ability in the workplace. Industry placed considerable confidence in the ability of these tests to demonstrate applicant job qualifications until legal developments - the Civil Rights Act, Griggs vs. Duke Power Co., Abemarle Paper Company vs. Moody, the Uniform Guidelines for Employee Selection - prohibited discrimination in the workplace on the basis of race, color, sex, religion, national origin or testing unrelated to the job which might have adverse impact on protected minority groups. Because of the difficulty in demonstrating compliance with all the tenets of these

legal developments, testing has been largely abandoned, leaving management to rely more heavily on less objective selection methods.

Interviewing is playing a more prominent role in the selection process because of the reluctance to use other forms of employment testing. As commonly employed in the selection process, the interview rarely provides information that can be readily used to objectively compare applicants. Considering the almost universal application of the selection interview, it would seem likely that it should have been submitted to extensive investigation to demonstrate its validity. Unfortunately, the findings of Mayfield (1964), Ulrich and Trumbo (1965), Wagner (1949) and Wright (1969) indicate that the majority of published articles on the selection interview are nothing more than personal opinions or "how-to" guides and are not a presentation of new information obtained through scholarly research. Most authors conclude that the interview, as employed in the selection process, lacks both reliability and validity. Reliability, in this context, refers to the agreement between the independent evaluations of two or more individuals interviewing the same person. Validity refers to the correlation between the interview performance of the applicant and their actual performance as employees. Regardless of the technical shortcomings of the interview, Wagner (1949) stated that even if the interview were thoroughly repudiated it would probably not be abandoned because there seems to be a certain human curiosity which can only be satisfied by seeing the applicant in the flesh.

Besides human curiosity, Godale (1976) lists other goals of the interviewer and the job applicant, based upon the job interview. Among the interviewer's goals are:

1. To gather information about the applicant that will assist in the prediction of future performance.
2. To inform the applicant about the job and the organization and to perhaps "sell" both to the applicant.
3. To determine whether the "personal chemistry" is good between the applicant and the people with whom they will be working.

The applicant's goals include:

1. To collect information on the job and organization so that the applicant can make an informed selection decision about the company.
2. To present oneself favorably and to sell oneself to the interviewer(s).
3. To test "personal chemistry."

Close inspection indicates that a few of these goals, though similar, may be in conflict with each other. It is difficult to gather information and observe typical behavior when applicants are trying to sell themselves and look their best. Interviewees are now being schooled in how to act during the selection interview which further complicates the interviewer's job (Decker, 1981). So, not only do interviewers need to know what behavior is required for proper pharmacist performance, but they must try to identify this when mixed with learned behaviors intended to bias interviewers in the applicants' favor. Conversely, the applicant has to sort through the interviewer's presentation to decide if this is the kind of job desired and if the company is being presented accurately. Considering the goals of both parties in the selection interview, emphasis in this review of the literature will focus on three critical areas of the selection

interview: the environment, the interviewer, and the interview questions. The effects of structuring these areas will be presented and discussed in the context of the selection interview.

Interview Environment

The structuring of the selection interview should consider the environment as well as the format. The site selected for interviewing should be adequately lighted, maintained at a comfortable temperature, quiet and free from distractions. All selection interviews should be conducted in the same room as the surroundings in which an interview occurs may affect applicant behavior as well as the interviewer's perceptions. For instance, the interviewer's desk or table may be considered by the applicant to be a barrier (Johnston, 1971). Barriers in the interview, depending on the applicant's perception, could conceivably bias the interview environment for or against the applicant. Similarly, the seating arrangement can place the applicant in a "corner," both literally and figuratively, in an interview situation. Some applicants will feel that being placed in a corner of the room constitutes an unfriendly or even threatening environment. Throughout the interview process the interviewers and interviewees should maintain the same seating arrangement, the standardization of furniture and seating arrangements will establish the potential bias from this aspect of the interview as a constant.

Among the other psychological barriers to be considered in the selection interview is the unequal distribution of power among the participants. The applicant is seeking a job. This job is probably a very highly desired element in the applicant's need structure. The

interview is an unfamiliar and uncomfortable experience for the applicant - not something done every day. On the other hand, the interviewers' need is not so urgent and they can be relaxed and comfortable. To the interviewer, the interview may be part of the daily routine or at least something that is done with some frequency. This difference in needs causes the emotional state of each party in the interview to be quite different. Given this situation, one cannot expect the typical applicant to be at ease during the interview. On the contrary, one might expect the applicant to be ill at ease, uncomfortable and nervous in such a stressful situation. If the interviewers convince themselves that the seemingly comfortable, self-assured applicant is somewhat better than the uncomfortable and nervous applicant the risk is run of basing the selection decision on largely superficial personality traits and succumbing to "phoney" (Nehrbass, 1977) behavior.

"Phoney" behavior (Nehrbass, 1977) relates to the imbalance of power in the job interview. Applicants feel the need to project an image or convey an impression of being a certain type of person in the interview in order to fit in and get the desired job. The cultural environment of the job hunter's world is reinforced by books, magazine articles and friends - all of which emphasize the need to project an image. In order to obtain a job, many applicants feel one must be perceived as sociable, highly intelligent, considerate, enjoying working with people, never having problems with superiors, universally liked, wanting a job that is challenging, seeking opportunity and desiring responsibility. The applicant feels obliged to put on a facade and

thereby adds to the already unreal atmosphere of the interview and compounds his own emotional uneasiness.

Interviewers can reinforce "phoney" (Nehrbass, 1977) behavior through their choice of questions. For instance, questions like: "How well do you get along with people?" or "What are your strengths and weaknesses?," encourage an applicant to provide the type of behavior the interviewer seems to desire. For this reason the interview must be structured to eliminate both the perceived need and the opportunity for "phoney" behavior. Concentrating on the collection of factual information structures the interview appropriately. When the emphasis of the interview questions requires that the applicant relate factual events from the past, the interviewers are steering the conversation away from projecting an image and towards reality.

Another important environment factor is the level of concentration that is developed during the interview. Pharmacy managers should anticipate the occurrence of selection interviews and arrange to conduct them as free from interruption as possible. In order to accomplish this, ample time should be allotted to the interview so that other commitments do not interfere. Callers should be kept from the interview area and telephone calls should be held so as to prevent them from distracting participants and interrupting the conversation. Interruptions can have biasing effects such as making the applicant feel that the interview is not important to the interviewer or that the interviewer lacks courtesy. Each time the interview is interrupted the participant's train of thought is broken, the conversation lapses, and valuable time is lost.

Care must be taken not only to create a good physical environment for interviewing but also a favorable emotional environment. Light conversation between applicant and interviewer is felt to open the lines of communication and place the applicant at ease. Beginning the interview with "small talk" provides both parties time to relax and become comfortable with one another. At this point, Zonenshine (1978) suggests that the interview format should be explained to the applicant. By providing a schedule to be followed, the interviewer controls the interview as well as helping the applicant relax in the knowledge of what is to come. When all parties are comfortable with the situation, the stage is set to obtain the information necessary to help the interviewer objectively evaluate each applicant. These steps establish an environment in which the applicant can comfortably answer the interview questions.

Interviewers

Probably the most common source of bias in the interview is introduced by the interviewers themselves. Each interviewer brings a set of personal biases to the interview resulting from his or her background. Mullins and Davis (1981) describe many of the biases connected with the interviewers' frame of reference such as interviewer overconfidence and a sense of infallibility. Schmitt (1976) points out that early impressions play a dominate role in the interview with the finding that interviewers reached a final decision about an applicant in an average of four minutes after the interview began. Decisions made so hastily are likely to be based upon manner, facial expression and personal appearance rather than upon information obtained during the

interview (Magson, 1926; Geidt, 1951; Springbett, 1958). Webster (1969) explains that after the initial judgement of an applicant is made, the interviewer selectively seeks information consistent with this first impression.

Mullins and Davis (1981) point to other problems with interviewer judgement: the central tendency error, the halo effect, interviewer leniency or strictness. The central tendency error occurs when interviewers rate all applicants as average. This type of judgmental error reduces the chances of identifying particularly strong or weak applicants. The opposite effect is known as the halo effect, characterized by the rating of an applicant as all good or all bad. This particular judgmental bias is felt to result when one characteristic is given undue weight and allowed to overshadow other characteristics (of equal or greater importance to the job). Because this one characteristic is given such importance, the evaluator does not get an accurate overview of the applicants. The third judgmental error, interviewer leniency or strictness, occurs because some interviewers give all applicants uniformly high or low ratings. This type of personal bias hampers comparisons of one interviewer's evaluation of an applicant to that of another's. The interviewer exhibiting the strictness or leniency error will have an evaluation that is not comparable with the other interviewers. Interviewer reliability is necessary for validity, thus disparity in interviewer evaluations jeopardizes the possibility of demonstrating interview validity.

Carlson et al. (1971) reported other interviewer-related biasing effects that are common in the selection process. The evaluation of an applicant may be influenced by the relative strengths or weaknesses of

the preceding candidates. This is termed the contrast effect and is exemplified when several poorly qualified applicants precede an applicant of average ability; the contrast allows the average applicant to receive undeserved high ratings. Carlson (1967) also reported that the pressure of filling a quota or meeting a recruiting deadline is sufficient stimulus to cause interviewers to accept applicants that they would normally reject. In order to eliminate this biasing effect, interviewers should try not to be deadline or quota conscious. Another biasing effect, according to Carlson, occurs when a number of applicants are interviewed sequentially causing interviewers to confuse the details about one applicant with those of the others. Each individual interviewer will be impressed with different applicant characteristics and will therefore remember these items and forget others.

Not only do interviewers subconsciously remember and forget information about applicants but they sometimes lead applicants to provide specific types of information. "Applicant coaching" can be done very subtly. As shown by Matarrazo, Wiens and Saslow (1964), the interviewer can easily increase or decrease the time an applicant spends talking about the various aspects of their background through various nonverbal communication cues. Coaching or leading is accomplished through the use of verbal and visual cues, however. Facial expressions, posture and gestures can lead applicants to expand or reduce their comments on a particular question. Similarly, simple "uh-huhs" and "hummms" also produce this effect. In this way interviewers lead applicants to reveal information consistent with their first

impressions, allowing them to justify hasty judgements made earlier in the interview.

Studies conducted at McGill University under the direction of E.C. Webster (1964) clearly show another judgemental error common to evaluators - a weighting error. Unfavorable information received by interviewers tends to be weighted more heavily than favorable information about the same applicant. Hollmann (1972) concluded that interviewers are able to appropriately weigh negative information but do not weigh positive information heavily enough. Springbett (1958) similarly found that an interviewer's impressions were more likely to change from favorable to unfavorable than from unfavorable to favorable. Hollmann (1972) noted that interviewers' positive stereotypes of applicants were not well differentiated, that is, interviewers could explain why an applicant was likely not to be a good employee but not why that applicant might be satisfactory. Webster (1969) attempted to explain this phenomenon by suggesting that interviewers only receive feedback from prior employers about bad employees and consequently learn to utilize negative information more appropriately.

Another source of interview bias is stereotyping. Interviewers possess a stereotype of their perception of the ideal candidate (Webster, 1969). Depending upon the familiarity of the interviewer with the position to be filled, this stereotype may or may not be accurate. Many times interviewers look at applicants who are similar to themselves as the ideal applicant. Interviewer stereotype further complicates the validity of the selection interview as the findings of Hakel, Holliman and Dunnette (1970) indicate. The research of Hakel et al. shows that the stereotype of the ideal candidate, for a particular job, varies from one

interviewer to another. Since each evaluator will rate the candidate most like their own stereotyped ideal candidate (themselves) highest, stereotypes become a major deterrent to reliability.

The problems associated with interviewer bias are a significant threat to interviewer reliability and validity. These problems with the human element may account for the fact that the Equal Employment Opportunity Commission (EEOC) found that the selection process is responsible for more charges of discrimination than any other aspect of employment practices (Mahoney, 1980). Because the interviewers themselves contribute so greatly to the subjectivity of the selection process, many authors (Carlson et al., 1971; Forbes, 1979; Greenlaw and Kohl, 1980; Mullins and Davis, 1981; and Schmitt, 1976) have advocated that reliability can be improved through interviewer training.

The first objective in the interviewer training process is the collection of relevant job information. It is important that interviewers have the following available to them before the interview: current copies of the job description; performance objectives; possibly, the performance evaluation document. The job description is obtained through the job analysis process and contains objective descriptions of the requirements for the position in question. Performance objectives should be operationally defined and will help the evaluators to identify the experience or the educational factors in the applicants' backgrounds showing performance in other jobs or training programs similar to that required for the current opening. The performance evaluation instrument gives interviewers an idea of the importance of various job duties thereby assisting in the appropriate weighting of information received through the interview. Duties and worker traits are weighted heavily in

the performance evaluation instrument and should therefore be weighted most heavily in the interview.

Longdale and Weitz (1973) reported that interviewers are more apt to agree about job candidates when they have a great deal of information, concerning the job, available to them. This indicates that reliability can be increased when interviewers are given specific information about the job to be filled. Webster (1969) expanded this by stating that the interviewer must understand what behaviors are required of an employee (an operationally defined job description) and must then be able to acquire relevant information in an interpretable form. Wiener and Schneiderman (1974) concluded that when this information is complete and unambiguous, the effect of irrelevant stereotypes was reduced. By knowing the requirements of the job to be filled, the interviewer is better able to focus on relevant information that will allow for the objective evaluation of applicants. Informational resources about the job provide all interviewers with a basic level of understanding about the position. Operating from this common foundation, the reliability of the interviewer's judgements should be improved.

A final point, relating to the interviewer, that should be considered, is the number of interviewers to be utilized. Mayfield (1964) reported that the interview compares favorably with other selection tests when the team approach is utilized. Pursell et al. (1980) also recommended the team or committee approach as interviewee responses can then be evaluated by multiple raters. It is recommended that from 3 to 6 interviewers be utilized in the selection process. This number is selected in order to keep the interview at a manageable

size, maintain the costs of the employment selection process at a reasonable level, and preserve an atmosphere which is not threatening or overpowering to the applicant.

Based upon the preceding literature, we can conclude that several specific elements are important in the design of an interviewer training program. The program should teach interviewers to avoid such rating errors as the halo, central tendency, strictness, leniency and contrast effects. Also, interviewers should avoid questions which demand unnecessary or inappropriate information as this information may be used in a discrimination law suit. Interviewers should not create situations in which they feel the need to portray a facade of phoney behavior. Because interviewers tend to become overconfident in their ability to judge applicants, training is needed concerning the inherent problems of reliability and validity in interviewer judgements. The importance and use of job-related information as the basis for evaluation should be stressed. Interviewers should be aware that very little benefit is gained from day-to-day interviewing experience (Carlson et al., 1971) and apparently the conditions necessary for learning how to interview are not present in the interview situation itself. Systematic training is necessary, along with some feedback mechanism built into the selection procedure, to enable interviewers to learn from their experiences.

Interview Questions

The interview questions are the backbone of the interview process. The questions are the interviewers' means of evaluating applicant qualifications. However, the interview question is also another source of legal problems. The Civil Rights Act, as amended by Title VII,

precludes evaluation of applicants on the basis of color, race, national origin, sex and religion. The list of selection taboos has, with the addition of new laws and further judicial clarification, expanded to include limitations in the obtaining of information pertaining to applicant age, arrest record, family status, military record, marital status and handicap. In recent years the amount of equal employment opportunity legislation has grown rapidly and the scope of these laws has been further expanded by court decisions. Koen (1980) advised employers to take all possible precautions in the development of preemployment selection interview questions. An employer seeking certain information, such as race, sex, age, marital status, number of children, etc., in the interview would be greatly increasing the possibility of an employment discrimination charge being filed with the EEOC.

The EEOC reports (Mahoney, 1980) that the selection process is the major source of discrimination charges. Obviously, the necessity for employers to develop appropriate interview questions is directly implicated by this statement. Depending upon the particular circumstances, an employer may be called upon to prove any or all of the following: 1) that some factor other than the information in question (the implication of the suit) was used to eliminate the applicant; 2) that the information in question is a valid job criterion and is based upon a legitimate business necessity; 3) that all applicants are requested to give the same information; 4) that use of the information as a selection criterion will not have a disparate impact on any protected group. Proving any of the preceding can be extremely difficult, time consuming and costly.

The best way to avoid this type of discrimination charge is to not ask for information prior to employment that is potentially prejudicial - unless you are prepared to prove that a bona fide occupational qualification (BFOQ) is involved. The Equal Employment Opportunity legislation is not intended to prohibit employers from obtaining sufficient job-related information about applicants in making the selection decision, but rather is intended to prevent an adverse impact upon protected minority groups. By applying the structured selection interview to all applicants, management is able to demonstrate that all applicants were treated similarly. However, caution must be exercised in eliminating potentially discriminatory questions.

Development of a list of strictly job-related questions can only occur with sufficient forethought. Questions should be designed to assess the applicants' skills and abilities as well as their interest in performance of the job in question. Job analysis is a vital step in the preparation of a list of questions that meet EEOC requirements for job-relatedness. There are several approaches to performing a job analysis, however, most utilize some combination of the following analytical steps: observation, interviews with job incumbents and supervisors, questionnaires and participant logs or diaries. The particular approach to be used is dependent upon the unique environment of each situation and is beyond the scope of this presentation.

The job analysis provides the information required for the development of the pharmacist's position description. From the position description a list of specific duties can be derived. This list is used to develop job-related questions for the selection interview. The Uniform Guidelines on Employee Selection Procedures require that

questions assess only knowledge, skills, abilities and other worker characteristics necessary for the performance of critical work assignments.

Questions used in selection interviews fall into four basic categories: first, the situational question; second, job knowledge questions; third, job sample or simulation questions; fourth, worker requirement questions. The situational question presents the applicant with a hypothetical job situation and requires a response as to how the situation would be handled. Job knowledge questions are used to determine if the individual's training and experience meet the job requirements as identified in the job analysis. The closer that questions approximate the content of the job, the more valid the selection process becomes. For this reason, the third category, job sample or simulation questions, is useful. This type of question requires that the applicant actually perform simple job tasks. In the case of a pharmacist, an actual job sample may not be possible - a mock-up of some of the critical aspects of the job could be constructed to simulate actual job assignments. Questions of the third type should be representative of job tasks in both content and language. Worker requirements, the fourth category, are usually "willingness" questions. For example, the applicant may be asked about willingness to work rotating shifts or to work exclusively in one area of the pharmacy such as the Intravenous Admixture Center. Worker requirement questions, since they refer to characteristics or duties of the job, may also serve as a realistic preview for the applicant and may aid in self-selection.

The interviewer's basic means of insuring that the interview stresses fact and not opinion or feelings is through questions that

require the applicant to relate factual events from the past. In this way, the interviewer steers the conversation away from projecting an image and towards reality. Pursell et al. (1980) stated that questions should be asked to obtain factual information relevant to the applicant's performance on the job. Questions must be accurate, complete and unambiguous - clarification of questions during the interview may reduce standardization and introduce bias. Attempts should be made to limit opportunities for leading applicants to desired responses through verbal or visual cues. Question clarification, in this context, may give some applicants an advantage and therefore bias the interview process. If the interviewer is not satisfied with the applicant's initial response, or feels that the applicant misunderstood the question, it may be necessary to carefully phrase a follow-up question. Another means of obtaining additional information, without disclosing a desired answer, is through the use of a verifying statement. Verification is the process in which the interviewers repeat, in their own words, what they think the applicant said. Properly utilized, the foregoing techniques do not give the applicant an idea of what the questions are looking for in an answer but do provide the needed information.

In addition to leading questions or cues, there are several other types of questions that should be watched for when interviewing. The first, loaded questions, puts the respondent in a "no win" situation. These questions are usually emotionally laden such as, "When did you quit using recreational drugs?" The second type of question to avoid are those that do not really have answers. Some examples of this second type are, "Tell me something about yourself." When confronted with such

questions, the applicant is baffled as to what the interviewer wants or why the question was asked. These questions may appear to the applicant as a form of "game playing" or as an attempt to "psyche" them and will serve to increase the applicant's uneasiness.

All questions must be strictly job-related and should assess only the skills, abilities and knowledge necessary for entry into the position. Questions should be tailored to job requirements, as nearly as possible reflecting the content of the job. Questions should also be geared appropriately to the complexity level of the job, that is, job requirements are assessed as the same level as they are needed in performance on the job. The collection of "nice-to-know information" opens the organization to the possibility of discrimination charges.

The interview is a data collection tool, therefore the applicant should do most of the talking. Since the purpose of the interview is to get the applicants to talk about their knowledge, skills, experience and other worker characteristics qualifying them for the job, questions should be designed so that simple yes or no answers are not acceptable. Likewise, interviewers should avoid multiple questions which make it difficult for the applicant to know where to begin. Talkative interviews - interviews where the interviewers spend more than half of the time talking - hamper the collection of job-related data about the applicant. If the interviewers dominate the conversation, the applicant will assume that there is a lack of interest in what they have to say. The interviewer's chief purpose in the interview is to listen and collect data. If the applicant strays from the subject then it is the interviewer's responsibility to redirect the conversation so that the purposes of the interview can be realized.

Interviewers can expect to see real applicant behavior and to make wise decisions in the interview if careful attention is paid to several important points. First, show genuine interest in the applicant by listening intently to responses and providing appropriate verbal and visual cues indicating active interest in the interview. Second, recognize nervousness as a natural response to the interview and try to make the interview psychologically safe for the interviewee. It is also important to stress that the interview is a process for gathering job-related information that will be used later to make the employment decision. Another point to remember is to eliminate both the need and opportunity for "phoney" behavior, by concentrating on facts and by avoiding "game playing" or "psyching out." Through attention to these points, the interviewer is more likely to see the desired applicant behavior and also obtain the information needed to make an intelligent employment decision.

Summary

This section has described the available literature relative to the selection interview which was pertinent to this study. The legal developments which caused abandonment of objective employment tests have led to more reliance on the interview as a selection tool. This increased emphasis on the interview created its own legal hazards, also described here. The problems of reliability and validity inherent in the interview process have been pointed out. The interviewer's and applicant's goals for the interview have been outlined. The elements of the interview environment to be considered in creating a favorable situation for obtaining the required information have been presented.

The importance of various aspects of the interviewer's behavior have also been described. The interview questions have been shown to be of prime importance in terms of legalities and selection information. All the preceding factors, as a whole, describe how the selection interview may be structured to consider legal aspects and to obtain objective information which can be used to evaluate job applicants in order to make the best employment decision.

CHAPTER III

PROCEDURES

Overview

This study was conducted to develop a model selection interview for staff pharmacists. The developmental procedures described herein include: a job analysis, development of selection interview questions, question weighting, an outline of the interview training program, and a system for documenting interview results.

Procedures

As described previously, the interviewer's responsibility throughout the interview process is to obtain information about the applicant that will allow comparison of applicants' knowledge, skills, abilities and other worker characteristics required for the position. Using this comparison of applicant qualifications and job requirements, interviewers estimate the applicants' potential to perform on the job. The identification of the critical work in the position and the knowledge, skills and abilities that enable someone to perform critical work was a major task in the development of the model selection interview.

Cohort Group

For the purpose of this study, a cohort group was organized which consisted of the department director, associate director, assistant

director and two supervisors. The cohort group worked together to develop the foundations upon which the model selection interview was built. Specifically they were instrumental in the establishment of minimum employment qualifications and responded to the surveys administered as part of the job analysis. A major purpose of their involvement was to provide face validity to the developmental phase of the structured selection interview.

Job Analysis

Initially, it was necessary to determine the minimum qualifications for the staff pharmacist position. Therefore, the first project given the cohort group was to identify minimum employment qualifications. Appendix 1 was distributed to the members of the cohort group. This questionnaire asked each member of the cohort group to list specific requirements for employment in each of the following areas: education, experience, knowledge, skills and abilities and any other requirements that were thought to be necessary for staff pharmacists. The responses were collected and combined into a master list of job qualifications. This master list was used in the development of another questionnaire, Appendix 2, which was distributed to the cohort group. The cohort group was instructed to categorize the list of minimum job qualifications as a) essential upon entry, b) useful upon entry, or c) not necessary. It was anticipated that by requiring them to review the complete list, items not felt to be minimum requirements by all of the group would be identified as merely useful upon entry or not necessary. Those items identified as not necessary would be eliminated and those felt to be useful upon entry would be retained as relevant qualifications,

additional factors to consider in favor of an applicant, but not minimum requirements. The listed requirements, identified by the majority as essential upon entry, would become minimum qualifications for employment as a staff pharmacist. Applicants who did not meet these basic requirements would not be eligible for further consideration in the selection process.

When the results of this categorization were obtained it was apparent that the cohort group, working independently, was not able to reach a consensus as to what constituted minimum requirements for the staff pharmacist position. It was necessary for the cohort group to meet in a work session to resolve their differences of opinion. To force a consensus of opinion they were required to assign each job qualification to one of the following categories: necessary or not necessary. Further consideration was given qualifications listed as not necessary, if possession of the knowledge, skill or ability enhanced the applicants' potential to perform, it was designated as a relevant qualification. Utilizing this procedure, minimum qualifications were established for the pharmacist position.

Establishment of minimum employment requirements was the first step undertaken in the job analysis process. Identification of critical work assignments was then necessary in order to formulate the job analysis surveys. To obtain a listing of what constituted critical work assignments for staff pharmacists, departmental personnel documents relating to the pharmacist position were reviewed. The staff pharmacist position description (Appendix 3), performance objectives (Appendix 4) and the performance evaluation form (Appendix 5) were utilized. The position description provided a list of the various tasks that were

expected of staff pharmacists and was used extensively for this purpose. The performance objectives provided the expected level of performance for these tasks, also providing insight into management's expectations of pharmacists' execution of their various duties. The evaluation instrument provided information relevant to the level of performance that was expected of the pharmacist and was used to substantiate the performance levels described in the performance objectives.

The personnel documents relating to the staff pharmacist provided departmental management with readily accessible sources of information regarding the pharmacist position. However, these personnel documents did not contain a listing by the relative importance of these duties to job performance. To determine the importance of these work assignments to overall job performance, it was necessary to prioritize them and determine their levels of utilization. This was accomplished with a two-step questionnaire that was administered to both the cohort group and the job incumbents. The first step of the survey listed tasks found in the review of departmental personnel documents and asked respondents to add any tasks routinely performed in the discharge of the pharmacists' duties. Both departmental management and staff pharmacists were asked to approximate the percentage of the average workday that was utilized by staff pharmacists performing these tasks (Appendix 6). Surveys from 5 management and 14 staff pharmacists were evaluated in the job analysis process. The information obtained was subsequently used to weight the interview questions and for the documentation of staff pharmacist performance levels. This documentation of tasks actually performed on the job was needed should the question of adverse impact arise regarding the selection process. Selection procedures that

produce an adverse impact on protected minorities are only allowable if they are strictly job related - a bona fide occupational qualification (BFOQ). Documentation of specific job duties was extremely important because it provided departmental management with verification of the job-relatedness of the selection procedures, and especially for the purposes of this study, the selection interview questions.

The second job analysis survey was a prioritization of pharmacist duties by the amount of time spent in performance of the tasks and by the importance of that task to the staff pharmacist position (Appendix 7). The respondents were instructed to place each task, weighted by time and importance, into the following categories: very important tasks requiring much time, very important tasks requiring little time, less important tasks requiring much time, less important tasks requiring little time. Existing departmental personnel documents did not prioritize critical work assignments in this manner. The data obtained from the questionnaire were valuable in the formulation of interview questions and also for their subsequent weighting. Interview questions should solicit information about the applicants' ability to perform in situations similar to those found in the pharmacist position. The specific information obtained in the survey about actual work responsibilities was used as a source for job-related selection questions. These data were also used to identify the most critical work assignments so that they could be weighted heaviest. Identification of performance in a previous position of tasks similar to those expected in this job provides the most valid assessment of an applicant's potential to perform.

Interview Questions

At this stage in the development of the structured selection interview, minimum requirements had been established and critical work assignments had been identified and categorized by their importance to the job. The next step was to utilize these data to formulate the interview questions. Question development has been described extensively in the literature review. Briefly, question development entailed formulating questions that solicit factual data, are accurate, are complete and unambiguous, are strictly job-related, and force the applicant to discuss knowledge, skills, experience and other work related characteristics. Questions were also formulated to eliminate the need and opportunity for contrived interview behavior.

Question Weighting

After the battery of interview questions was written, it was necessary to establish a weight for each question. Questions were assigned weights according to the importance of the task, skill or job knowledge that the question was designed to evaluate. Therefore, questions about the most important aspects of the job or tasks requiring the greatest amounts of the pharmacist's time were given the highest fractional weights. The sum of all the questions was designated as one to provide an absolute value by which all applicants would be scored. Relevant qualifications were also assigned the value of 0.02, allowing the more highly qualified applicants to increase their total score and thereby reflect their training or skill levels.

Weighting Applicant Responses

Following the weighting of each interview question, it was necessary to establish a system for assigning a value to applicant responses. The answers applicants gave for each question were rated on a scale of 1 to 5, according to the strength of the response. A response that indicated an applicant had extensive skill or background in the area the question was designed to assess, would be given a value of 5, an average answer would be given a value of 3, and an answer indicating the applicant had no experience or background in that area would receive 0. Through the use of this type of rating scale, a value could be placed on each of the applicants' responses. This is also an area in which subjectivity can enter the evaluation process. This is the reason the next step in the selection process, interviewer training, is so important. Interviewer reliability is prerequisite for the validation of the selection interview. Validation of the structured selection interview process will include the evaluation of interviewers' scores to see if reliability was achieved.

Interviewer Training Program

Research conducted by Longdale and Weitz (1973) and Webster (1969) showed that interviewers rate applicants more reliably when they possess specific knowledge about the job for which they are interviewing and about the forms of bias possible in the selection process. For this purpose, an outline for the training of interviewers was developed.

Documenting Interview Results

To assist in the validation of the selection interview, another document was developed for job interviewers to record information

presented in the interview. This applicant data collection sheet was designed to provide a uniform instrument for organization of the information presented during the interview. Cues are included for certain questions, space for clarifying comments and the scale for rating responses were placed on the form to simplify the interviewer's task. The individual ratings given each applicant for each question are to be transferred to the applicant summary sheet after the interview. The applicant receiving the highest scores would be considered the most qualified as determined by the structured selection interview.

A selection procedure has been defined as valid when it predicts applicant performance on the job. A problem encountered with the validation process, as outlined, was that it will only compare the interview and performance evaluation scores of applicants who are actually hired. The possibility exists than an applicant who did not perform well in the interview, but who would perform well on the job, would not be hired. The converse is also true. The method for controlling for this possibility is to hire the first applicant who meets the minimum requirements for employment. Longitudinally, the interview score would be compared with the performance evaluation scores to determine if there is a relationship between them. Surely this would have an adverse impact on departmental performance and management would not be willing to hire applicants in this manner just to determine interview validity. Hiring the most qualified applicant, as determined in the selection interview, is therefore considered the alternative which best meets the department's operational needs. Selection interview scores, and the results of each performance evaluation will be

documented and used for the purpose of validation of the selection interview.

Summary of Procedures

A cohort group consisting of pharmacy management personnel at University of Utah Hospital was used to determine minimum employment qualifications for the staff pharmacist position. This step in the job analysis was expanded to identify critical work and to determine the importance of these tasks to the pharmacist position. Interview questions were constructed using the pharmacist responsibilities identified in the job analysis. Questions were weighted and a system for scoring the interview was established. An outline for the training of interviewers was drafted and documents which allow the interviewers to collect and evaluate the data obtained in the interview were developed. The procedures for validation of the structured selection interview were also outlined.

CHAPTER IV

RESULTS

Herein are the results obtained from the job analysis which was described in Chapter III. The cohort group established minimum employment qualifications for the staff pharmacist position. Both the management and the staff pharmacists of the University of Utah Hospital were asked to prioritize the activities performed during the average pharmacist's workday according to 1) time weighting of the tasks, and 2) importance of the task in relation to the time involved. In addition, pharmacist activities were grouped into four general categories based upon the results of the survey. Documents for the recording of survey results were developed to assist in interview validation.

Minimum Employment Qualifications

The first survey (Appendix 1) requested that the cohort group list employment qualifications. Table 1 presents a composite listing of responses received from this survey. This master list of employment qualifications was then developed into a questionnaire (Appendix 2), which was distributed to the cohort group. As described previously, the cohort group's responses to this questionnaire regarding minimum employment qualifications was inconclusive. It was then necessary to have the cohort group meet in a working session and categorize the master list of employment requirements as either necessary, not

Table 1

Master List of Job Requirements

1.	Bachelor of Science Degree from accredited College of Pharmacy.
2.	Doctor of Pharmacy Degree from accredited College of Pharmacy.
3.	One to two years experience in hospital pharmacy as an intern, pharmacy resident or pharmacist.
4.	Possess or be eligible for Utah pharmacy license.
5.	Possess good communication skills.
6.	Possess good drug knowledge.
7.	Ability to supervise pharmacy interns or technicians.
8.	Experience with intravenous additive admixture.
9.	Experience with unit dose drug distribution system.
10.	Patient counseling ability.
11.	Basic drug monitoring skills.
12.	Clinical pharmacy abilities.
13.	Possess confidence in personal abilities.
14.	Keeps abreast with professional continuing education.
15.	Typing ability.
16.	Able to handle job duties with reasonable speed.
17.	Accurate worker.
18.	Interest in becoming a pharmacy intern preceptor.
19.	Flexible attitude, able to adjust to new programs or responsibilities.
20.	Member of professional pharmacy organizations.

necessary or relevant. See Table 2 for the results of this working session.

Time Weighting Survey

The first survey to be presented in this portion of the job analysis will be the time weighting of pharmacists' duties. The results of this survey, Table 3, show that there are differences between management and staff pharmacist mean approximations of the time required for the performance of some job duties. Differences of greater than 50 percent in the amount of time allotted to any task by the two groups were considered to be noteworthy.

A divergence of opinion was found in the time weighting of the admission interview and processing of patients' personal medications. The management group estimated that 12.4 percent of the pharmacist's time was required for this activity whereas the staff pharmacist estimated 8.2 percent of the workday.

The time involved in the training of pharmacy interns, externs and technicians was another area in which a difference in time allotment existed. The management group placed 3 percent of the pharmacist's workday in the teaching category - the staff indicated more time, about 5.6 percent of their workday was required for teaching activities.

The management group assigned less of the pharmacist's time to coordinating activities in their service area with other areas in the department and hospital than did job incumbents. The management group placed 4.2 percent of the workday in this category while the staff opinion placed 6.1 percent of their time as spent in this activity.

The staff felt that much of their workday was required for the filling of new physician orders and for the checking of accuracy.

Table 2

Categorization of Job Requirements by the Cohort Group in the Work Session

	Job Requirement	Necessary	Not Necessary	Relevant
1.	Bachelor of Science Degree	X		
2.	Doctor of Pharmacy Degree		X	X
3.	Proof of continuing education attendance		X	X
4.	Possess or be eligible for state licensure	X		
5.	Prior pharmacy experience		X	X
6.	Good interpersonal communication skills	X		
7.	Perform job tasks with reasonable speed		X	X
8.	Supervise pharmacy interns and technicians	X		
9.	Ability to monitor drug therapy	X		
10.	Type 15 words per minute	X		
11.	Handle job related stress		X	X
12.	Handle job related problems	X		
13.	Good basic drug knowledge	X		
14.	Previous clinical pharmacy experience		X	X
15.	Desire to learn clinical pharmacy skills	X		
16.	Accurate worker	X		
17.	Flexible in work area, shift and responsibilities	X		
18.	Interest in becoming a pharmacy intern preceptor	X		
19.	Member of professional pharmacy organizations		X	X

Table 3

Management and Staff Responses to Staff Pharmacist Workday[1]

	Duty	Average % of Workday: Management (n=5) Mean ±	SD**	Staff (n=14) Mean ±	SD**
1.	Checking/filling unit dose carts	16.4	3.1	15.4	3.2
2.	Patient discharge procedure	18.0	5.7	17.9	3.8
3.	Admit interview and personal medication handling	12.4	2.5	8.2	3.3
4.	Provide drug information to health professionals	6.6	4.8	5.9	2.9
5.	Monitor drug therapy	6.8	4.1	5.6	2.9
6.	Teaching/training of interns/externs	3.0	1.9	5.6	3.1
7.	Coordination of area activities with other hospital/department areas	4.2	1.1	6.1	2.4
8.	Respond to CPR beeper	2.0	1.9	1.4	1.3
9.	Supervision of technical and other personnel	6.4	3.4	6.4	2.8
10.	Fill/check new orders	14.4	5.2	19.4	10.5
11.	Clinical activities	3.1	2.1	4.5	2.6
12.	Patient/pharmacy rounds	1.5	1.6	1.3	1.8
13.	Computer work	0.5	0.9	0.6	1.3
14.	Administrative assignments	0.7	1.3	0.7	1.3
	Total	96.0*		99.0*	

1 X^2 comparison of management and staff: $X^2 = 3.34$, df = 13, $p < 0.05$, not statistically significant.

* Totals are not 100% because some respondents assigned a portion of the workday to non-work activities such as waiting for elevators, coffee breaks and transit time between duties.

** Standard Deviation

Management felt that 14.4 percent of the pharmacist's time was spent processing new prescriptions whereas the staff designated 19.4 percent.

Categorization of Pharmacist Responsibilities

The results of the time weighted job analysis survey were grouped into four categories representing general types of assignments pharmacists may be required to perform (Table 4). The categories chosen were technical duties, clinical/patient oriented duties, administrative duties and teaching duties. When grouped in this fashion, both management and staff delegated approximately 50 percent of the pharmacist's time to performing technical functions in the pharmacist position. Each group assigned about 30 percent of the workday to the clinical or professional tasks. As mentioned earlier, teaching pharmacy interns, externs and technicians was an area in which the two groups had differences in the time allotment with staff pharmacists indicating that more of their workday was spent in the teaching role than did the management group. The groups did not report a difference in their time allotments to administrative tasks when considered singly, but when the administrative tasks were grouped a small difference became apparent. Staff pharmacists reported that 13.8 percent of their time was spent performing administrative duties whereas management assigned 11.8 percent of the pharmacists' workday to this category.

Biphasic Prioritization

The second job analysis survey utilized a biphasic prioritization of the pharmacist's job duties. Consideration was given not only to the time involvement, but also to the importance of each task to the position of pharmacist itself. Tables 5 and 6 present the actual

Table 4

Pharmacist Responsibilities Categorized by the Nature of the Task[1]

Job Task Categories	Average % of Workday: Management (n=5) Mean ±	SD**	Staff (n-14) Mean ±	SD**
1. Technical Tasks Job duties 1,2,10	48.8	1.8	52.7	2.0
2. Clinical Tasks Job duties 3,4,5,8,11,12	32.4	4.1	26.9	2.7
3. Teaching Job duty 6	3.0	0	5.6	0
4. Administrative Job duties 7,9,13,14	11.8	2.9	13.8	3.2
Total	96.0*		99.0*	

1 X^2 comparison of management and staff: $X^2 = 1.6$, df = 3, $P < 0.05$, not statistically significant.

* Totals are not 100% because some respondents assigned a portion of the workday to non-work activities such as waiting for elevators, coffee breaks and transit time between duties.

** Standard Deviation

Table 5

Prioritization of Pharmacist Work

Responsibilities by Importance

		Very Important		Less Important	
		% Mgt.*	% Staff	% Mgt.	% Staff
1.	Check/fill unit dose carts	80	79	20	21
2.	Discharge procedure	100	50	0	50
3.	Admission procedure	100	72	0	28
4.	Drug information	100	100	0	0
5.	Drug therapy monitoring	60	93	40	7
6.	Teaching/training	40	57	60	42
7.	Coordination of service area	60	72	40	28
8.	Respond to CPR beeper	60	85	40	14
9.	Supervisory responsibilities	60	42	40	57
10.	Fill/check new orders	100	86	0	14
11.	Clinical activities	80	79	20	21
12.	Patient/pharmacy rounds	20	43	80	57
13.	Computer work	20	0	80	100
14.	Administrative tasks	20	21	80	79

*Management n=5, Staff n=14

Table 6

Prioritization of Pharmacist Work

Responsibilities by Time

		Much Time		Little Time	
		% Mgt.*	% Staff	% Mgt.	% Staff
1.	Check/fill unit dose carts	80	93	20	7
2.	Discharge procedure	80	79	20	21
3.	Admission procedure	40	50	60	50
4.	Drug information	20	29	80	71
5.	Drug therapy monitoring	20	14	80	86
6.	Teaching/training	0	35	100	64
7.	Coordination of service area	0	7	100	93
8.	Respond to CPR beeper	0	14	100	85
9.	Supervisory responsibilities	0	57	100	42
10.	Fill/check new orders	80	93	20	7
11.	Clinical activities	0	7	100	93
12.	Patient/pharmacy rounds	0	0	100	100
13.	Computer work	0	7	100	93
14.	Administrative tasks	0	0	100	100

*Management n=5, Staff n=14

numerical results of the second survey in which a management group and staff pharmacist group were asked to 1) estimate the amount of time a staff pharmacist spends in the performance of various job duties, 2) categorize these tasks according to importance. Differences of greater than 20 percent between the management and staff groups were considered to be noteworthy. The list of job duties was extracted from the job description and performance expectations.

Checking and filling unit dose carts was listed by 80 percent of management and 75 percent of the staff pharmacist group as one of the more important job responsibilities. Management and staff also agreed in their estimation of the time involved in this task. Eighty percent of management and 91 percent of the staff group felt that much of the pharmacists' time was required.

Management and staff group opinions differed greatly upon the importance of filling and dispensing of patient discharge medications. The entire management group placed these patient discharge procedures in the more important category whereas only 50 percent of the staff group did so. However, 80 percent of both management and staff groups felt that patient discharge procedures took a great deal of the pharmacist's time.

There was disagreement between the two groups regarding the importance of patient admission interviews and the handling of personal medications obtained from the patient during the interview. All of the management group, as compared to only 72 percent of the staff group, assigned this duty to the more important task category. The two groups were in closer agreement upon the time commitment of this job; 40 percent of the management and 50 percent of the staff group felt this

duty required much time. The remainder of each group decided that only a small amount of time was spent interviewing new patients and helping with their personal medications.

Management and staff groups unanimously agreed that providing drug information to other health professionals was one of the more important job responsibilities of the staff pharmacists. However, both groups responded that little time was spent in doing so; 80 percent of the management group and 71 percent of the staff group placed the provision of drug information in the category of tasks requiring little of the pharmacist's time. The remaining number felt this task demanded a greater portion of the pharmacist's time.

A difference of opinion between the groups was demonstrated concerning the task of monitoring patient drug therapy. Sixty percent of the management group placed this duty in the more important task category whereas 93 percent of the staff group did so. In contrast, the two groups were in agreement as to the amount of time involved in monitoring patient drug therapy with 80 percent and 86 percent of management and staff groups, respectively, selecting the category for "little time involved".

The teaching or training of intern pharmacy students and pharmacy technicians was the next category considered by the groups. Again there was a difference between the management and pharmacist ratings of the importance of this task - 40 percent of the management and 57 percent of the staff group determined that training of interns and technicians was an important part of the pharmacist's job. An additional divergence of opinion was seen relative to the time evaluation of this task. All of the management group decided that this task required little of the

pharmacist's time as opposed to 64 percent of the pharmacist group. Therefore, more than one-third of the staff pharmacists felt that intern and technician training required a considerable portion of their time and the entire management group responded conversely.

Management and staff pharmacist groups were in close agreement regarding the importance of coordinating activities in their area with all other pharmacy areas. Sixty percent of the management group and 70 percent of the staff group designated this as one of the more important tasks. The agreement extended to the time involved in efforts to coordinate pharmacy service areas: 100 percent and 93 percent of the management and staff groups, respectively, responded that this aspect of the job required little of the pharmacist's time.

Within the management group, 65 percent felt that the pharmacist's responding to the cardiac arrest signal was important. However, 85 percent of the pharmacists selected this as a more important job duty. All of the management staff placed this assignment in the low time priority category while 84 percent of the staff held this opinion.

The groups disagreed upon the importance of the supervision of technical and other personnel. Sixty percent of the management group regarded this as an important aspect of the pharmacist's job as compared to only 42 percent of the pharmacists holding this opinion. The conflict of opinions about supervisory responsibilities included the time commitment as well: none of the management group felt this assignment required much time whereas 57 percent of the pharmacists felt that it did require much time.

The filling and checking of new orders was rated by all of the management group as an important job assignment and by 86 percent of the

staff pharmacists as a more important job assignment. The rating of the time involvement showed 80 percent of the management and 93 percent of the staff decided that this job duty consumed much of the pharmacist's work time.

Close agreement was found in the two groups' ratings of importance and time commitment of clinical activities. The importance of clinical activities as a job responsibility was placed in the more important category by 80 percent of the management group and by 93 percent of the staff group. All of the management and 93 percent of the staff pharmacists assigned this aspect of the pharmacist's job to the less time involved category.

The management and pharmacist groups held different views upon the importance of the pharmacist's participation in patient rounds. Only 20 percent of the management group felt this aspect of the job was important whereas 43 percent of the staff pharmacists felt rounding to be an important part of the job. The groups were in unanimous agreement that rounding involved little of the pharmacist's working time.

Pharmacist involvement with the computer system was listed as an important job duty by 20 percent of the management group but none of the pharmacist group felt computer work to be an important job responsibility. Accordingly, all of the management and 93 percent of the staff group responded that little pharmacist time was spent working with the computer.

Administrative duties were felt to be more important job duties by 20 percent of both managers and staff. The two groups agreed unanimously that administrative assignments require little of the pharmacist's time.

Interview Questions

The information contained in the personnel documents relating to the pharmacist position as well as the results of the job analysis were useful in the development of interview questions. The list of questions to be used in the selection interview is presented in Table 7. The weights assigned to each interview question is listed in Table 8. The sum of the weights of the standard interview questions was arbitrarily designated to be 1. The weight to be assigned to each qualification that the interviewers considered relevant was 0.02 (Table 2). Therefore the more highly qualified applicants could receive a total score greater than one by the possession of relevant employment qualifications in addition to those that were required.

Interviewer Training Program

The interviewer training program outline, Appendix 8, highlights areas identified in the literature as being common sources of selection interview bias. The impact of these problems will be reduced if interviewers are aware of the nature of these problems, means of avoiding them or possible solutions. Interviewers will also receive instructions regarding the use of materials used during the selection interview. They must be familiar enough with the data collection instrument so that it does not become a source of distraction during the interview. The pharmacist position description, performance expectations and performance evaluation documents, Appendices 3, 4, and 5 were included in the training materials given each interviewer. These documents are intended to reduce the impact of false stereotypes that interviewers may have developed of the ideal pharmacist for the

Table 7

Interview Questions for the Structured Selection Interview at University Hospital

1. Please give a brief description of your previous pharmacy experience.
2. Describe what you do during a typical workday.
3. Considering the technical functions that are part of the pharmacist position, tell us about the skills you possess that may be required in the preparation of physician orders.
4. Please explain the specific patient monitoring activities you routinely perform in your current job.
5. Describe your involvement in patient-pharmacist activities in your present job.
6. What are your daily interactions with other health care professionals?
7. What is your role as a pharmacist on the CPR team?
8. What specific drug information responsibilities do you perform in your present job?
9. Describe efforts that you make routinely in your job to assure that integrated pharmacy services are provided to patients for whom you are responsible.
10. In your current pharmacy job what specific supervisory responsibilities do you have?
11. How do you feel your current supervisor would rate your job performance?
12. Tell us about your job qualifications as a staff pharmacist that you feel we should consider as we decide among the job applicants.

Table 8

Weights Assigned Questions of the Structured Selection Interview

Question Number	Question Weight
1	0.15
2	0.15
3	0.2
4	0.06
5	0.06
6	0.06
7	0.04
8	0.04
9	0.04
10	0.04
11	0.08
12	0.08
Total	1.0
Relevant Qualifications	0.02 each

position. If this can be accomplished interviewers will rate job applicants according to a common stereotype and all ratings will tend to be more reliable as a result.

Documenting Interviewer Results

Applicant-specific data obtained in the selection interview are to be recorded on the applicant data collection sheet (Appendix 9). The applicant summary sheet was designed to assist with the comparison of job applicants. The scores on the applicant data collection sheet should be transferred to the applicant summary sheet (Table 9). This form contains the weights assigned to each interview question. By multiplying this weight by the interviewers' rating, the applicant score is obtained. The question scores for each applicant can be easily compared to determine interviewer reliability. Reliability is determined by the similarity of the ratings each interviewer gives an applicant. The applicant receiving the highest score, either total score or the average of all scores, would be considered the most highly qualified candidate as determined by the structured selection interview. The interview scores are then transferred to a form for the comparison of the selection interview to the performance evaluation score (Table 10). The information contained on this form will be used for the validation of the selection interview. As applicants are hired and their interview scores are compiled these scores can then be compared with the actual workplace performance evaluation scores. It will become apparent as this process continues whether or not the structured selection interview is capable of predicting employee performance. This is, after all, the purpose of the selection process.

Table 9

Applicant Summary Sheet to be Used to Compare Scores Given Each Applicant to be Used to Assess Interviewer Reliability

Applicant Summary Sheet

Applicant _____

Interviewer Question Number

	1	2	3	4	5	6	7	8	9	10	11	12	Total
Weight	.15	.15	.2	.06	.06	.06	.04	.04	.04	.04	.08	.08	
Rating (1-5)													
Score													
Rating (1-5)													
Score													
Rating (1-5)													
Score													

Table 10

Comparison of Interview and Performance Evaluation Results

Name	Interview Score	Performance Evaluation Scores

Summary of Results

Presented in this section were the results of two job analysis surveys administered to pharmacy management and staff pharmacists employed at University of Utah Hospital. Specifically, these results consist of the cohort groups' minimum employment qualifications for staff pharmacists. The results of the respondents' prioritization of pharmacist daily job activities were weighted first by time investment alone and then by time investment as a function of importance. A comparison was outlined of the average of the pharmacist workday per duty as weighted by the management and staff pharmacist groups. The results of the biphasic job analysis were presented and the estimations and categorizations according to time and importance presented average percentages and compared across groups. A description of the points of convergence and divergence of the staff and management groups' prioritization were presented. Also the groupings into four general "types of assignment" categories were explained. The actual interview questions were presented as well as their assigned weights. The various forms required for the documentation of the selection interview results were developed and presented.

CHAPTER V

DISCUSSION

This section will focus on findings from this study that were thought to be of interest, unexpected or controversial. The purpose of this study was to develop a structured selection interview procedure which could easily be implemented in a hospital pharmacy department, specifically in this case, the University of Utah Hospital Pharmacy.

Many questions were raised by the job analysis surveys which were not directly answerable because of the limited nature of the data collected. However, relevant inferences can be derived from the data accumulated in the questionnaire.

Job Analysis Surveys

Minimum Employment Qualifications

The first noteworthy finding arose during the establishment of the minimum employment qualifications for the pharmacist's position. When working independently, the cohort group was unable to produce a list of minimum qualifications. Although differences of opinion regarding requirements for employment were expected, the magnitude of the differences was surprising. Resolution of these differences required the cohort group to meet in a brain-storming session. Employment requirements that generated the most debate in this session are addressed in the following discussion.

The minimum experience requirements drew a spectrum of stipulations which ranged from absolutely no previous pharmacy experience to one full year of experience as either a hospital pharmacist or as a postgraduate resident in hospital pharmacy. When the group had heard discussion pertaining to the minimum experience requirement, it was decided that previous experience should be designated as a "relevant qualification" - an attribute that can be used to differentiate the more highly qualified applicants from the others - rather than as a minimum job requirement. The rationale was that the quality of an applicant's experience cannot be determined by the length of time over which the experience was gained. In other words, does the applicant have 12 months of experience or 1 month of experience twelve times over? The group was also unsure if experience gained in one pharmacy setting would be generalizable, and therefore relevant, in another setting. As a result of these questions, the entire group agreed to use experience as a relevant employment factor.

Another qualification that caused considerable deliberation was typing ability. Some members of the group considered job tasks, such as the entering of intravenous additive label instructions into the computer and the typing of discharge medication labels, reason enough to require a typing level of 50 words per minute. Other members felt that some lesser ability would be more appropriate. The group discussed the issue and concluded that typing was not an important job skill, therefore, minimal ability - typing at the 15 word per minute level, could be used as a minimum typing requirement. The establishment of such a low typing requirement is interesting considering the effort underway for several years to automate the pharmacy operation through

the use of a departmental computer system. The proposed typing speed indicates that typing should not be considered a job requirement but rather as a relevant factor. It is likely, however, that a pharmacist functioning at a 15 words per minute typing level would experience a job handicap at a time when pharmacists are collecting patient-oriented information via an automated system. Considering the greater reliance on electronic data processing in the operation of the pharmacy, it would seem that the speed and accuracy of data input to the system would assume increased importance for the pharmacist. Keeping in mind the fact that the cohort group consists of management personnel, there appears to be a conflict in the departmental objective towards automation and the management's expectations of the pharmacist's necessary skills in accomplishing this objective.

Time Weighting Survey

The first job analysis survey was designed to assess the time prioritization of pharmacist job tasks, both by the management group and the staff pharmacist groups. Generally, the average times assigned by each group to the tasks were similar, indicating that both groups have corresponding opinions concerning the time weighting of pharmacist activities. However, one of the areas where their opinions varied was the time involved in the admission interviews conducted with new patients. The pharmacists assigned a greater portion of their time to this function than did the management personnel, 12 and 8 percent, respectively. This result may indicate that management underestimated the length of time required to conduct these interviews or they underestimated the number of interviews performed each day. Another

possibility is that the difference between management and staff may not be large enough to be meaningful.

Staff pharmacists also felt that a greater portion of their workday was spent teaching or training pharmacy personnel and students than was estimated by managers. The hospital is a training institution for health care professionals; education is one of its fundamental purposes. It would seem likely that considerable effort would be directed toward this end. The department also employs a considerable number of pharmacy interns, requiring training in the role of pharmacist. The turnover for pharmacy supportive personnel is such that there is almost always someone in training. Considering these points, it would seem that the staff regularly participates in training activities. Whether the time required is the 3 percent that the management group allotted, or the 5.6 percent allotted by the staff, remains an unanswered question. The time estimates may differ because the management group generally approach their teaching responsibilities at a different level than do staff pharmacists. Another explanation for the difference is that the staff may have included more tasks in the training category than did the management group: this broader interpretation of the training role would result in a greater portion of time being committed to this function.

Coordination of one pharmacy area with other areas in the department and with other hospital departments, was another area in which the groups' time estimates differed. Again, the pharmacists placed more time in this category than did the cohort group. From the data collected, it is not known why the staff assigned more of their workday to this responsibility than did the management team. The

pharmacists possibly included more activities in this category, or perhaps the managers underestimated the amount of time required to coordinate pharmacy services with other services. The opportunity for greater interaction of the pharmacists with other members of the health care team provided by a decentralized pharmacy system, such as the University's, also mandates a substantial amount of coordination between departmental services.

The staff also allocated a greater portion of their time to the filling and checking of new orders than did their supervisors. Perhaps pharmacists spend more time working with new orders due to the complexity of therapy in a teaching institution. Many physicians are in training at University Hospital and this may increase the amount of time that the pharmacists spend processing new medication orders. Also, pharmacists may not be delegating work to the technicians and are therefore processing orders themselves which could be handled by supportive personnel. The amount of time required for processing new physician orders may be an indication of a mismatched ratio of supportive-to-professional personnel. Assuming pharmacists are not forced to perform these technical functions themselves, because of inadequate technical support, it may be projected that pharmacists feel more comfortable functioning at a technical level than at the level for which they were hired and trained. It may be inferred as well, that departmental management expect pharmacy supportive personnel to complete a greater portion of the processing of new orders than is actually possible in the workplace.

Categorization of Pharmacist Responsibilities

When the average time allotments for the various job duties were grouped into four general categories of technical, clinical, teaching and administrative duties (Table 4), differences still remained between the management and staff groups. This may indicate that there are differences between management and staff pharmacists' perception of how the pharmacists spend their work day. Both groups placed approximately 50 percent of the pharmacist's time in the technical category and about 30 percent in the clinical category. From the discussion in the brainstorming session, it appeared that the managers prefer applicants with a clinically oriented background. This desire could express itself in the selection process and cause a bias toward those applicants possessing this type of experience. If this were the case then pharmacy directors may be giving applicants unrealistic job expectations. Hired under these circumstances and ultimately spending 50 percent of a workday in the performance of technical duties rather than performing the expected clinical activities, the pharmacist may find job expectations unfulfilled resulting in lowered job morale. Job dissatisfaction is commonly thought to be a cause of increased employment turnover and a lowered employee morale.

Time Importance Survey

The next phase of the job analysis was the prioritization of tasks by time involvement and importance. Again, management and staff pharmacists reported differences in their prioritization of the pharmacist responsibilities. For example, the patient discharge procedure was thought to take much time by about 80 percent of each

group but the perceived importance of this task differed. All of the management personnel felt this to be an important job duty. This opinion was held by only half of the staff. Several reasons may account for this difference in the estimation of the importance of preparing patient discharge medications. One possibility is that the staff categorize this duty as basically technical and they would prefer to spend their time in other patient-oriented activities. Another aspect is that the preparation of the discharge medications is a continual interruption in the workflow. When a patient needs medication before leaving the hospital, the pharmacist must leave current occupations and attend to the discharged patient. Also, preparation of discharge medications often requires the pharmacist to leave the assigned patient care unit, subsequently time is lost in transit and this could be considered a drain on the limited time for completion of other patient-oriented activities deemed to be of higher priority.

The performance of admission interviews again surfaces as a job task upon which the two groups differed. All of the management personnel felt this was an important duty. Approximately 70 percent of the staff shared this opinion. Thirty percent, a considerable portion of the staff, indicated that this was not one of their most important job responsibilities. The staff may simply have designated this activity as a lower priority because most admission interviews are performed on the 15:00 to 23:00 "swing" shift. The swing shift pharmacist, part of a reduced staff and bearing increased responsibilities, may be pressured to complete the interviews rapidly thus being unable to effectively gather and process the information that should be obtained during the interview. A portion of the interview,

the collection of personal medications brought into the hospital, places the pharmacist in the uncomfortable position of taking personal property from patients. Also, some patients are reluctant to release their medications to a stranger - the pharmacist.

One surprising area of divergence between management and staff prioritization was in the monitoring of patient drug therapy. In this category, 93 percent of the staff and only 60 percent of the management group placed this duty in the more important task category. This is surprising because departmental managers have repeatedly stated that the function of pharmacy is drug-use control. Also, perhaps management personnel consider the staff pharmacist improficient in drug therapy monitoring so they designate it an unimportant aspect of the position.

As mentioned earlier, in the time prioritization process, staff pharmacists indicated that more time is required for training and teaching than was indicated by management. Thirty-five percent of the staff placed this job in the much time involvement category - the rest of the staff and management placed this in the low time priority category. It could be suggested that 35 percent of the staff take their teaching and training responsibilities more seriously or perhaps this is the portion of the staff selectively assigned to do the training of new pharmacy personnel and students.

Another clinical or patient-oriented responsibility where differing opinions as to importance surfaced was the pharmacist's involvement in the cardiac arrest team. Again, more of the staff placed this in the important function category, 85 percent of staff as compared to 60 percent of the management group. This too may be attributable to management's view of the pharmacists' capabilities in this role and the

consequential lack of pharmacist preparation and training for the role. Those staff members who also placed this in the low importance category may view themselves as inadequately trained for cardiac arrest aid or they may think their knowledge, skills and experience are not appreciated by other team members. Assistance on the cardiac arrest team is a function of high clinical involvement and could provide the pharmacist with a sense of professional fulfillment.

Supervision of other personnel was listed by 57 percent of the staff and by none of the management team as an activity requiring more of the pharmacists' time. One explanation for this could be that supervision is viewed as a role that can be accomplished from a distance and therefore does not require much time. The staff, on the other hand, may feel the weight of this responsibility more acutely because they are held responsible for the actions of interns and technicians. Pharmacists' tasks require a level of accuracy which, perhaps, can only be achieved through close supervision. Supportive personnel may not be adequately prepared to function in all of the areas that are expected by the departmental management. Alternately, pharmacists may use supervision of others as an excuse to fall back into the role of drug distribution in which they feel more comfortable.

Fifty-seven percent of the staff, and 80 percent of the management group listed patient or pharmacy rounds as a less important job function. The fact that over half of each group designated rounds as one of the less important job duties indicates that this is a job role that has not been accepted by management or staff pharmacists. Apparently, the role of the clinical pharmacist on the rounding team requires development within this institution. The low importance rating

may also result from the pharmacist not being accepted as a member of the rounding team. Departmental managers may not estimate the pharmacist as an essential member of the rounding team. Likewise, pharmacists may consider themselves inadequately trained to participate in patient rounds and therefore assigned the task a low priority. Additionally, many of the pharmacists' distributive responsibilities occur at the same time as the physician rounds. Frequently pharmacists are called away causing participation in rounds to be inconsistent and therefore ineffective. Individuals who listed rounding as an important function may arrange to attend and find this a rewarding and meaningful aspect of their patient care responsibilities.

Overall, it is relevant that a substantial amount of dissimilarity exists between management and staff pharmacist group opinions regarding task importance and task time commitment. Some of the possible explanations for the differences in the prioritization of the pharmacists' job responsibilities have been presented. Identification of the exact reasons for these differences was not the primary purpose of the job analysis. Rather the job analysis was performed to weight the selection interview materials. These data were needed to show the job-relatedness of the selection tools. It is important that information requested during the selection interview be indicative of either the level of performance expected of job incumbents or of the knowledge and skills that are necessary for the job performance. Documentation of incumbent performance levels is necessary, also, for the defense of a charge of adverse impact. If an applicant is denied employment and files an employment discrimination suit, it is the responsibility of the organization to show that selection tools are

job-related, if they have actually created an adverse impact on a protected minority group.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Authors previously cited have demonstrated the utility of the structured interview as a selection tool. This study sought to adapt this research, primarily accomplished in other fields, to the development of a structured interview for the employment selection of pharmacists. Describing this development process provides a format for the application of the structured selection interview to hospital pharmacy departments.

Steps undertaken in the development process included: 1) a review of the professional literature relevant to the selection interview; 2) a review of personnel documents pertaining to the pharmacist position; 3) the establishment of minimum employment requirements; 4) the performance of a job analysis; 5) the composition and weighting of interview questions; and 6) the development of a flow of documents which would facilitate determination of the interview reliability and validity. The results of this project were presented in a form which would allow directors of other departments of pharmacy services to follow the steps, as outlined, and thereby produce a selection interview tailored to their particular department. Importantly, this project illustrates that pharmacy directors can utilize the resources available to them and develop a more objective selection tool, even when these resources are

extremely limited. In other words, improving selection procedures is a realistic and an achievable objective.

The results obtained from the surveys, administered as part of the job analysis, left many questions unanswered. Perhaps time-motion studies would explain the divergencies of management and staff pharmacist groups' time weightings of job tasks. Such studies would give a more exact breakdown of the pharmacists' workday than the questionnaire method. However, information collected through time-motion studies is much more costly and time consuming to obtain and could possibly be beyond the resources of some pharmacy directors. In this study, practicality was essential as an assurance of the applicability of the developed procedures. Highly sophisticated methods of job analysis were not employed here, rather, methods available to all pharmacy directors - methods inherently less precise - were utilized.

Identifying specific reasons for the groups' divergent prioritization of tasks, may be crucial to resolving performance problems within the department; however, this is not necessary for the development of the selection interview. In the application of a job analysis, the director of pharmacy services would follow-up on these discrepancies. If these differences in prioritization were to go unchecked, management and staff would not be united in an effort to achieve departmental goals and objectives and the fulfillment of their purpose may be frustrated.

Limitations of the Study

This section will explore some of the limitations of this study. The approach taken in this study was to outline a set of practical

procedures to be followed in the development of the selection interview. Each step identified in this procedure is within the capabilities of any pharmacy department.

The first limitation was skewed input of participants in the establishment of minimum employment qualifications. In the working session it was seen that dominant personalities can influence the outcome of this type of group effort.

An obvious example of this is the level of typing skill to be required of pharmacists. The 15 words per minute typing requirement is obviously inadequate in light of the thrust to automate pharmacy operations. The ability of a pharmacist will change from typing prescription labels to entering patient specific information into a computer system for clinical and financial evaluation of the patient. The myopic viewpoint held by several members of the cohort group that typing ability is no longer necessary for "clinical" practice led to establishment of such a low level of typing skill.

Another aspect of the job analysis that could limit its usefulness is the simplistic method used in this study to perform the job analysis. Certainly more elaborate job analysis techniques are available. Many of these methods entail large numbers of employee observations to collect very specific time and function information. These observation job analysis methods do not rely on the memory of participants for their accuracy, since results are derived from direct employee observation for their accuracy. As a result they would not be biased by employees selective recall and estimation of the time spent in the performance of various job responsibilities. More sophisticated job analysis techniques provide more accurate information, but this increase in the

quality of the job analysis must be balanced against the additional expense involved in paying for these techniques.

Variations in workload, task priorities and job duties also exist between the three shifts comprising the workday. The pharmacist and technician responsibilities are shift specific, and no allowance for these variations was made in this study. A more accurate breakdown of time involved in the performance of various job responsibilities would have been obtained had the job analysis distinguished between the three working shifts.

Another factor that may limit the ultimate application of the structured interview as developed in this study is the current redefinition of professional and supportive personnel roles that is occurring in the department. A comprehensive reevaluation of the pharmacist and technician duties has been undertaken. The outcome of this process most likely will be a transfer of some tasks from pharmacist to technician. If enough rearrangement of job duties were to occur the job analysis performed for this study would become outdated. The weights that were developed as a result of this job analysis then require modification to reflect the new departmental operations.

These limitations were understood and accepted at the outset of this study. As mentioned, the objective was to establish an affordable process. The methods used are basic and the selection interview was designed as a tool for the relative assessment of possession of specific worker requirements. It is impractical to think that a job can be broken down into exact percentages of time committed to a particular duty.

Projections for Future Research

The most important question that remains to be answered, pursuant to this project, would be; does the structured selection interview actually identify individuals with the potential to perform as desired? The answer to this question will come as a result of a longitudinal analysis of interview performance versus job performance. The documents necessary to answer this question were developed as part of this project. When the number of applicants hired reaches the level needed to demonstrate significance, this question can be answered statistically. The empirical value of the system, however, may well become apparent before statistical significance is achieved.

The determination of interviewer reliability can also be answered through the use of the interview scoring sheets produced for this project. Reliability indicates whether or not interviewers weight information presented in the interview uniformly and is also an indicator of the effectiveness of the interviewer training program. Once interviewers understand the job requirements thoroughly, they should be able to identify these requirements in the applicants and weight them appropriately. Interviewer reliability, as well as correlation of interview performance and job performance, are necessary for validation of the selection process.

The comparison of the structured interview with the weighted application blank also merits investigation. It would be interesting to ascertain which tool is a better indicator of ability to perform the job, or whether the use of both tools is the best indicator. The study of various selection methods used alone, and in combination, may improve management's ability to select the best applicants for the job.

Defining the relationship between performance in the selection interview and job satisfaction, may also prove beneficial. Determining not only which applicants will perform well when hired, but also which will find the job satisfying, might further increase the value of the structured selection interview. Job turnover is often cited as an indicator of job satisfaction; the cost of job training could be reduced if job turnover could be reduced.

All of the preceding ideas would be important corollaries to this study. Each would provide additional information regarding the selection process. Every additional piece of information about the selection process contributes to management's better performance in this role.

APPENDIX 1

MINIMUM JOB REQUIREMENTS

This is a questionnaire that was distributed to the management team of the University of Utah Hospital Pharmacy Department. Its purpose was to identify what they thought were minimum employment requirements for staff pharmacists.

Please list the qualifications that you think should be minimum job requirements for employment as a staff pharmacist at University of Utah Hospital.

1. Minimum educational requirement for pharmacists?

2. Minimum experience requirement for pharmacists?

3. Abilities that should be required of staff pharmacists? (clinical skills, professional skills, etc.)

4. Minimum technical skills?

5. Miscellaneous requirements?

APPENDIX 2

MINIMUM JOB REQUIREMENTS

SURVEY 2

Please put a check in the column which best expresses your opinion regarding the listed job requirement for the staff pharmacist position.

	Essential Upon Entry	Useful Upon Entry	Not Necessary Upon Entry
B.S. degree from accredited College of Pharmacy			
Pharm.D. degree from accredited College of Pharmacy			
If out of school more than two years proof of CE attendance			
1 to 2 years experience as hospital pharmacy intern			
1 year experience as hospital pharmacist			
Residency in hospital pharmacy			
Good interpersonal communication skills			
Good basic drug knowledge			
Clinical pharmacy experience or training			
Desire to learn clinical pharmacy skills			
Able to perform job duties with reasonable speed			

	Essential Upon Entry	Useful Upon Entry	Not Necessary Upon Entry
Accurate worker			
Ability to supervise interns/ technicians			
Typing skill ____ wpm			
Able to monitor drug therapy			
Interest in serving as pharmacy intern preceptor			
Flexible to changes in responsibilities, programs or shift			
Able to deal with job stress			
Able to solve problems arising in job			
Possess self-confidence			
Membership in pharmacy organizations			
Other			

APPENDIX 3

UNIVERSITY OF UTAH HOSPITAL

POSITION DESCRIPTION

Position Title: Pharmacist Date: June 3, 1983

Job Class: 352607 Reports to: Supervisor, Pharmacy

GENERAL FUNCTION

Provides pharmaceutical services by compounding and dispensing medications, monitoring drug therapy, and by furnishing drug information to ensure safe and effective use of prescribed medications.

REPRESENTATIVE MAJOR ACTIVITIES

1. Compounds and dispenses medications, following prescriptions of patient's physician, to ensure that appropriate medication is received.

2. Monitors drug therapy utilizing patient profiles for efficacy, drug interactions, adverse drug reactions, contraindications, allergies, and sensitivities.

3. Provides patients with appropriate usage instructions and relevant drug information to ensure safe and effective use of prescribed medications.

4. Assists physicians with drug selection and therapeutic regimens and furnishes drug information to ensure appropriate drug therapy.

5. Provides strict control over drug dispensation by ensuring that only licensed practitioners prescribe medication, that formulations made from basic investigational drugs are accurate and stable, that narcotics and dangerous drugs are handled properly, and that all questionable medication orders are verified by the cognizant physician to guarantee compliance with state and federal laws and regulations.

6. Participates in the orientation, instruction, training, and daily supervision of Pharmacy Technicians and student interns to provide students with practical working experience and to ensure staff competency.

7. Supervises activities of pharmacy staff in assigned patient care areas when functioning as duty shift supervisor or pharmacist-in-charge to provide a smooth running operation.

8. Participates in departmental Quality Assurance Program by ensuring that all quality control measures are followed.

REPRESENTATIVE MINOR ACTIVITIES

1. Conducts in-service educational programs and provides drug information to physicians, nurses, students, and other staff to promote awareness of pharmacology.

2. Maintains proper documentation and records and oversees drug storage by monitoring inspection of supplies for outdated or improperly stored medications and stocking of floor medications in nursing units and clinics to ensure availability of supplies and patient safety.

COMMENTS

Pharmacists report to designated Pharmacy Supervisors. Requirements for this position include one year recent experience within the past two years as a pharmacist or an intern pharmacist in a hospital which provides all contemporary pharmacy services, Utah State licensure as a Pharmacist which include a Bachelor's degree in Pharmacy, and a Controlled Substance License. Incumbents are required to maintain membership in both state and national hospital pharmacy organizations, actively participate in continuing education programs, and maintain knowledge of current state and federal regulations and trends in products, drug therapy, and other pertinent pharmacological information.

APPENDIX 4

UNIVERSITY OF UTAH HOSPITAL DEPARTMENT
OF PHARMACY SERVICES

PHARMACIST PERFORMANCE OBJECTIVES OF
THE INPATIENT PHARMACY SERVICE

After completion of the orientation period, the pharmacist will be able to:

1. Describe the purpose of the policy and procedure manual as it pertains to the inpatient pharmacy operations.

2. Fill and check the unit dose medication cart.

3. Check and fill orders for new medications.

4. Fill and check discharge and "Leave of Absence" medications.

5. Effectively counsel patients regarding use of their discharge and leave of absence medications.

6. Participate in work rounds when work load permits.

7. List items regarded as patient floor stock for each area and explain how they are charged and replaced.

8. Describe the "non-charge" floor stock system.

9. Make the following entries on the Nursing Medication Profile:

   a. pharmacist initials when order checked against profile transcription
   b. charging of floor stock items used by patient

10. Describe how the copies of the Nursing/Pharmacy Medication profile are priced and charged to the patient.

11. Describe the decentralized pharmacists' role in interacting with other pharmacy staff services, e.g., IV Admixture Service, Drug Information Service, Purchasing and Inventory Control Service, IV Therapy Team and Clinical faculty.

12. Describe appropriate and list examples of inappropriate interactions with Nursing/Medical personnel in problem solving and teaching capacity.

13. Provide appropriate drug information to all health professionals.

14. Provide inservice education programs to Pharmacy, Nursing and Medical staff pertaining to drug use, distribution and control when needed.

15. Provide on-going patient teaching programs describing drug use, side effects, storage requirements, and special instructions.

16. Provide floor stock replacement to Operating Rooms, Anesthesiology, Recovery Room, and Ambulatory Surgery.

17. Rectify drug problems such as missing doses and doses not given utilizing proper reporting forms.

18. Respond to requests for STAT medication and provide such medications as needed.

19. Conduct floor stock inspections according to departmental policies.

20. Use the telephone system according to departmental policies.

21. Rectify narcotic control problems through interaction with the appropriate health professionals.

22. Describe the procedure for handling and reporting of medication errors.

23. Assist in the supervision and training of pharmacy interns and supportive personnel.

24. Describe the job descriptions and responsibilities of the pharmacy supportive personnel.

25. Stock the decentralized master medications cart.

26. Describe the work responsibilities of the pharmacists emphasizing the differences peculiar to each floor.

27. Describe procedures pertaining to non-formulary requests, restricted drugs, and investigational drugs.

28. Describe the prepackaging system used within the department.

29. Describe the recordkeeping procedures required for extemporaneous compounding and prepackaging.

30. Dispense and file Outpatient, Discharge and Emergency Room prescriptions during hours when the outpatient pharmacy is closed.

31. Provide service for the Drug Information Center during hours when closed.

32. Independently provide centralized unit dose distribution service during hours when the decentralized unit dose service is non-operational.

33. Describe procedures for filling prescriptions from the controlled substance night cupboard.

34. Describe procedures for restocking the controlled substance night cupboard.

35. Describe all policies and procedures pertaining to controlled substances and the controlled substance vault.

36. Describe the laws concerning the record-keeping system of the inpatient pharmacy with respect to all medications.

37. Describe the uses of special carts (hemodialysis, pediatric crash, crash, and dialysis). List the items stocked on them, and describe how they are replaced and charged.

38. Describe the use of the Want Book.

39. Describe procedures to be followed while dispensing investigational medications, including the proper use of protocols and completion of necessary records.

40. Describe the procedures for filling special requests from Emergency Room and other Medical Center departments.

41. Describe procedures for obtaining and lending needed medications during hours when Purchasing and Inventory Control Service is not staffed.

APPENDIX 5

UNIVERSITY OF UTAH HOSPITAL DEPARTMENT
OF PHARMACY SERVICES

_____
Pharmacist being evaluated

_____
Date of evaluation

EVALUATION OF PHARMACIST PERFORMANCE PROGRAM

This program combines the result of a self-assessment, peer and management review and culminates in a self-development plan for the evaluatee. The program integrates the subjective (A) and objective (B,C) results obtained from the peer group and management with the self-assessment (D) completed by the evaluatee. The evaluatee is then present during a small group discussion wherein all results are discussed and self-development plan is prepared. ALL evaluations are maintained anonymously and are strictly confidential.

OBJECTIVES

1. To provide a tool for the constructive evaluation of each pharmacist relative to their overall performance.

2. To provide a mechanism whereby departmental management may assist and advise each pharmacist on self-development.

PROCEDURES

1. Application of this instrument will take place during the fifth and eleventh months of employment for all pharmacists and annually thereafter.

2. The evaluative instrument, sections A, B, C will be completed for each pharmacist being evaluated by a group consisting of four peer pharmacists, one technician or intern, and one supervisor.

3. Each pharmacist being evaluated will complete their own assessment, section D, in addition to sections A, B, and C and be able to compare this to the composite results of the other evaluations.

4. All copies of distributed evaluations will be returned to the department director of designated responsible management individual. Each evaluation will be reviewed and the average result of each question posted to an unmarked results form. All submitted copies will then be destroyed except for evaluatees personal copy.

5. In private conference with a small group of management personnel, the evaluatee will be able to review and discuss the results of the evaluative process in terms of relative strengths and areas of needed improvement. A self-development plan for the coming year will be discussed and established relative to the needs of the individual pharmacist.

INSTRUCTIONS

1. Each numbered item represents a statement of an individual's qualification and is followed by a number of descriptions. Check the description which best describes the individual's usual and customary performance level.

2. Each evaluator is encouraged to write additional comments in the OPINION space provided after each numbered statement. These comments often provide needed insight and further definition of performance.

A. GENERAL ATTRIBUTES OF THE PHARMACIST

1. Quality of work

____ Exceeds minimum requirements of accuracy and neatness; very few errors, carries out instructions well.

____ Poor quality of work; continually makes errors, requires excessive checking and rework by other personnel; careless; work is barely acceptable.

____ Consistent high degree of accuracy and neatness, work can be relied upon.

____ Meets minimum requirements of accuracy and neatness; average quality of work.

Opinion:

2. Demonstrates promptness and good attendance

____ Seldom absent or tardy. Usually reports absence or tardiness in advance. Dependable.

____ Often absent or tardy; seldom reports absence or tardiness in advance, generally undependable
____ Excellent attendance record, typically at work on time. Very dependable.

Opinion:

3. Job knowledge

____ Excellent understanding of job assignments; requires very little direction. Very capable person.

____ Inadequate knowledge of duties; understanding of job duties is not sufficient. Needs considerable instruction.

____ Has adequate knowledge of duties. Needs additional instruction and direction.

____ Good knowledge of duties. Well informed. Seldom needs direction.

Opinion:

4. Attitude

____ Cooperative, shows a high interest in work. Goes out of way to help. Pleasant to work with.

____ Occasionally unwilling to follow instruction without argument. Inclined to be stubborn and uncooperative in certain situations.

____ Cooperative most of the time. Interested in their work. Quick to offer assistance to others.

____ Difficult to work with. Chip-on-shoulder. Uncooperative, rude.

Opinion:

5. Quantity of work

____ Works fast; often exceeds work requirements.

____ Very fast and prompt worker. Consistently exceeds requirements.

____ Slow worker. Does very little work; wastes time.

____ Works at a steady pace. Meets minimum requirements.

____ Works at a slow pace. Needs encouragement and urging.

Opinion:

6. Versatility

____ Very adaptable and flexible. Masters new tasks and assignments easily. Handles many varied assignments without difficulty.

____ Reasonable versatility. Able to perform several related tasks. Learns and performs new tasks and assignments with little difficulty.

____ Learns new tasks slowly. Has difficulty in adjusting from one task or assignment to another.

____ Seems unable to learn new tasks. Cannot adjust to change from one job task or assignment to another; resists change.

Opinion:

7. Initiative

____ Occasionally seeks new tasks. Works well when given responsibility. Makes occasional suggestions.

____ Seldom seeks new tasks; will accept responsibility when necessary but does not go out of way. Routine worker.

____ Definitely a self-starter. Goes out of way to accept responsibility. Very alert and often constructive.

____ Never volunteers to undertake work. Requires constant prodding to do work, has no drive or ambition. Dislikes responsibility.

Opinion:

8. Personal Appearance (check one)

____ Always neat and clean, presents a very professional appearance.

____ Dress is acceptable, however could use improvement. Meets minimal departmental dress standards.

____ Often sloppy, unclean, dress is unacceptable.

Opinion:

9. The degree of interpersonal skills exhibited to patients, interdepartmental and intradepartmental personnel.

____ Exhibits positive attitudes. Quickly establishes rapport and has ability to communicate with others while fulfilling service commitments.

____ Effectively communicates and maintains good rapport with patients, inter- and intradepartmental personnel.

____ Lacks tact, diplomacy and communication skills in dealing with others.

____ Occasionally causes problems due to poor rapport, attitudes, or interpersonal skills.

Opinion:

B. PHARMACY PRACTICE SKILLS EXHIBITED BY THE PHARMACIST

1. Skills in the performance of technical pharmacy functions.

____ Performs work very slowly with poor accuracy. Work often needs redoing. Commits many errors.

____ Exhibits consistently high accuracy in technical functions. Demonstrates both speed and accuracy. Work seldom needs redoing. Rarely commits errors.

____ Normally demonstrates average accuracy and speed. Work seldom needs redoing. Commits few errors.

Opinion:

2. Effectiveness in monitoring drug therapy for efficacy, drug interactions and/or adverse drug reactions. (i.e., utilization of the MAR).

____ Often monitors patient drug therapy. Sometimes uses monitoring sheet when available together with MAR. Often leaves information for oncoming person.

____ Continuously monitors patient drug therapy. Usually uses monitoring sheet when available together with MAR. Provides well documented information for oncoming person.

____ Never monitors patient drug therapy. Does not use the MAR appropriately. No communication of previous shift activity.

____ Generally monitors patient drug therapy. Uses MAR appropriately. Sometimes leaves information for oncoming person.

3. Effective communication and ability to establish rapport with other pharmacists.

____ Sometimes passes pertinent information onto other pharmacists. Sometimes makes constructive criticism to other pharmacists.

____ Passes pertinent information to oncoming pharmacists. Tactfully makes constructive criticism when needed. Criticism usually received well by other pharmacists.

____ Never passes pertinent information onto other pharmacists. Alienates other pharmacists with lack of tact when making criticisms.

____ Usually passes pertinent information onto other pharmacists. Able to make constructive criticism of other pharmacists.

Opinion:

4. Effective communication and ability to establish rapport with nurses.

____ Usually solicits pertinent information to and from nurses. Maintains adequate credibility and reliability in daily functions and communications.

____ Solicits and gives pertinent information to and from nurses. Maintains high credibility and reliability in daily functions and communications. Nurses feel they can rely on this pharmacist to get things done.

____ Sometimes solicits and gives pertinent information to and from nurses. Has low credibility and reliability in daily functions and communications.

Opinion:

5. Effective communication and ability to establish rapport with patients. (e.g., patient medication counseling skills, taking medication history)

____ Usually uses tact when approaching patients. Gives only adequate information to patients about their medications. Sometimes solicits complete information while taking drug history. Usually discusses side effects.

____ Always attempts to place patient at ease when approaching them. Gives all pertinent information to patients about their medications. Always discusses side effects. Always solicits complete information from patient when taking a drug history.

____ Makes patients uncomfortable when approaching them. Leaves out pertinent information about medications. Seldom conducts medication history; seldom discusses side effects. Feels patient counseling is not part of job.

____ Sometimes uses tact when approaching patients. Gives only minimal information to patients about their medications. Does not try to solicit complete information from patient when taking drug history. Usually does not discuss side effects.

Opinion:

C. MANAGEMENT RELATED SKILLS EXHIBITED BY THE PHARMACIST

1. Ability to work within a structure of established policies and procedures.

____ Possesses a thorough knowledge and understanding of pharmacy services, including policies, procedures, protocols, and responsibilities.

____ Familiar with most policies and procedures encountered in daily activities.

____ Understands both the content and intent of written policies and procedures. Able to clarify or discuss questions relating to policies and procedures with personnel external to the Pharmacy Department.

____ Lacks knowledge of existing policies and procedures relating to daily practice.

Opinion:

2. Ability to effectively coordinate own area of service responsibility with other areas of the department.

____ Neglects to consider the needs and activities of others.

____ Demonstrates excellent communication skills. Keeps all parties informed of current status, and assures successful performance via follow-up procedures.

____ Usually informs other areas of needs or support required. Adequately coordinates areas of service responsibility.

____ Assures integration of services by routinely communicating with other areas of the department, and patient care areas. Employs follow-up procedures to ensure successful performance.

Opinion:

3. Ability to effectively handle fluctuations in work flow and to complete all required activities without overflow into the oncoming shift.

____ Exhibits marginal judgement and effectiveness in establishing priorities, utilization of personnel and resources. Rarely completes shift activities, leaves many partially completed items for the next shift.

____ Usually completes shift activities in order of priority or urgency with adequate utilization of resources and manpower available.

____ Exercises sound judgement in decisions concerning the deployment of manpower, establishment of priorities, and allocation of resources in completion of shift activities and provision of service.

Opinion

4. Ability to consistently withstand pressures and tensions inherent in the job, maintaining effective control and adaptability to changes.

____ Exhibits lack of tact and maturity in dealing with others and performs poorly when subjected to less than optimal conditions.

____ Almost always demonstrates emotional and intellectual control in exceeding standards of performance under adverse conditions.

____ Generally maintains emotional and intellectual control. Performs well under trying conditions while maintaining good rapport with others.

Opinion

5. Ability to effectively supervise and utilize technicians and/or student interns in assigned areas. Ability to employ communication skills to achieve cooperation, reinforce responsibilities, and motivate individual performance.

____ Serves as an exceptional role model for others. Demonstrates and communicates highest level of desired skills which stimulate others to achieve similar performance. Motivates others by example.

____ Usually ensures adequate personnel supervision and utilization. Displays acceptable communication skills to reinforce desired performance, and attempts to motivate others.

____ Normally supervises, utilizes, and reinforces performance of subordinates through demonstrated communication skills and feedback. Often motivates others by example.

____ Ineffective as a supervisor or role model. Seldom utilizes, directs, supervises, or attempts to motivate personnel. Seldom communicates or provides feedback relevant to performance of others. Tends to perform all job functions alone.

Opinion:

6. Ability to recognize problems with departmental personnel, to document them and follow through appropriately - either as a supervisor or with the appropriate supervisor. (Personnel problems would include time/attendance, attitude, pilferage, job performance, etc.)

____ Often ignores obvious personnel problems. Seldom attempts to communicate problem with the individual or supervisor.

____ Recognizes personnel problems. Attempts to resolve the problem via communication, action, or referral to supervisor.

____ Recognizes real and potential personnel problems and tactfully communicates with personnel involved. Usually resolves or documents problem for referral to supervisor. Provides feedback and follow-up to seek resolution.

Opinion:

7. Ability to recognize errors involving patients, unusual occurrences, and incidents requiring documentation. Ability to properly complete the appropriate report forms, and follow through to the solution of the problem with the appropriate individuals.

____ Able to recognize incidents which require documentation and initiates documentation. Demonstrates acceptable communication skills in keeping only appropriate individuals informed of current status and action taken.

____ Usually completes the required documentation in a satisfactory time and manner. Assures communication is provided to only appropriate individuals and takes necessary action.

____ Occasionally recognizes incidents requiring documentation, seeks assistance to plan further action or to initiate documentation.

____ Neglects incidents requiring immediate action. Fails to seek assistance in determining if documentation or further action is necessary.

____ Always completes required documentation in a thorough and timely manner. Provides direction and assistance to appropriate individuals. Demonstrates exceptional skill in communication and rapport while providing follow-up through satisfactory resolution.

Opinion:

(Person completing self-evaluation need not answer #8 below: See question D-11)

8. Please list in summary form your judgements of the strengths and areas for improvement that apply to this evaluatee.

Strengths

Areas for Improvement

APPENDIX 6

TIME WEIGHTING SURVEY FOR PHARMACIST JOB

Duties Completed by Management and Staff Pharmacists

Listed below are the major tasks that staff pharmacists may perform in the discharge of their daily work responsibilities. Consider a typical workday, from your conception of the activities of this typical shift. Please estimate the amount of time spent in the performance of these duties. Remember this is a percentage and the total should equal 100%. Please add any duties that were not listed.

____ 1. Checking/filling unit dose carts.
____ 2. Patient discharge procedures.
____ 3. Admission interview and personal medications.
____ 4. Providing drug information to other health professionals.
____ 5. Monitoring patient drug therapy.
____ 6. Teaching/training pharmacy personnel/students.
____ 7. Coordination of service area with other areas in department and hospital.
____ 8. Responding to cardiac arrest beeper.
____ 9. Supervise technical or other personnel.
____ 10. Filling and checking new orders.
____ 11. Clinical pharmacy activities (pharmacokinetics, etc.)
____ 12. Pharmacy or patient rounds.
____ 13. Computer work.
____ 14. Administrative duties.
____ 15. Other _____
____ 16. Other _____

100% TOTAL

APPENDIX 7

BIPHASIC PRIORITIZATION OF PHARMACIST WORK RESPONSIBILITIES BY THE TIME INVOLVEMENT AND IMPORTANCE TO THE JOB AS REPORTED BY MANAGEMENT AND STAFF PHARMACISTS

Refer to the percentages of the pharmacists' workday established in the previous questionnaire, Time Weighting of Pharmacist Job Duties, and prioritize those tasks by importance to the pharmacist position and by time involvement. Use the four quadrants below and place the number of each task in the appropriate quadrant. For example, a task that is very important and requires little time to perform would be placed in the third quadrant.

	Very Important Tasks	Less Important Tasks
Much time involved	1.	2.
Little time involved	3.	4.

APPENDIX 8

INTERVIEWER TRAINING PROGRAM OUTLINE

I. OVERVIEW OF INTERVIEW PROCESS

A. Purpose of interview

1. interviewer
2. interviewee

B. Importance of interview

II. INTERVIEW BIAS AND POSSIBLE SOLUTIONS

A. Interview environment

1. distraction-free
2. barriers
   a. physical
   b. psychological

B. Interviewer

1. frame of reference
2. overconfidence
3. central tendency
4. halo-horns effect
5. leniency or strictness
6. contrast
7. pressure
8. memory
9. coaching
10. information weighting
11. stereotyping

C. Questions

1. obtain factual-objective information
2. avoid leading questions
3. avoid questions with no answer
4. make all questions strictly job-related
   a. job analysis
   b. position description
   c. performance objectives

III. DATA COLLECTION

A. Develop data collection instrument

B. Develop applicant data collection matrix

IV. RELIABILITY

A. Uniformity of ratings among interviewers

V. VALIDITY

A. Comparison of interview results and performance

B. Test of time

APPENDIX 9

APPLICANT DATA COLLECTION SHEET

Personal appearance of applicant

____ presents a professional appearance
____ adequate, meets departmental standards
____ unacceptable
Comments:

1. Previous pharmacy experience includes:

____ inpatient hospital
____ unit dose distribution
____ IV additive service
____ patient counseling
____ patient education program
____ drug information
____ clinical pharmacy/patient monitoring
____ outpatient/retail practice
____ other_____
Comments:

Is the applicant's experience similar to what is required in our position?

Rating 1 2 3 4 5

2. Activities of a typical workday include:

____ checking unit dose carts
____ filling unit dose carts
____ checking IV admixtures
____ preparing IV admixtures
____ patient medication counseling
____ patient medication monitoring
____ patient rounds
____ teaching
____ outpatient/retail
____ other_____
Comments:

Are these activities similar to those performed by our staff?

Rating 1 2 3 4 5

3. Technical skills include:
   ____ typing ____ wpm
   ____ prescription compounding
   ____ fast worker
   ____ accurate worker
   ____ computer skills
   ____ language _____
   ____ other _____
   Comments:

   Does the applicant possess the technical skills required for this job?

   Rating 1 2 3 4 5

4. Patient monitoring activities
   ____ MAR review
   ____ pharmacokinetics
   ____ patient teaching
   ____ other _____
   Comments:

   Has the applicant's previous patient monitoring skills prepared them for this job?

   Rating 1 2 3 4 5

5. Patient-pharmacist interaction of applicant
   ____ medication counseling
   ____ medication teaching
   ____ drug history
   ____ other_____
   Comments:

   Has the applicant's patient interaction been similar to what is expected on our job?

   Rating 1 2 3 4 5

6. Interactions with health care professionals include:

   Has the applicant's interaction with health care providers been similar to what is expected in our position?

   Rating 1 2 3 4 5

7. CPR experience

Will this applicant require additional training to function on the CPR team?

Rating 1 2 3 4 5

8. Drug information responsibilities of applicant include:

Has the applicants previous experience prepared them for the requirements of this job?

Rating 1 2 3 4 5

9. Providing integrated patient care was accomplished by:

Has the applicant experience prepared them for our job?

Rating 1 2 3 4 5

10. Supervisory responsibilities include:

____ technicians
____ interns
____ pharmacists
____ other _____
Comments:

Is the applicant prepared to assume the supervisory responsibilities of this job?

Rating 1 2 3 4 5

11. Current supervisor's rating of applicant

____ excellent worker (5)
____ very good worker (4)
____ good worker (3.5)
____ average worker (3)
____ below average worker (2)
Comments:

12. Applicant's personal assessment of own qualifications.

Rating 1 2 3 4 5

SUMMARY OBSERVATIONS

13. What is your overall evaluation of this applicant's job qualifications?

____ highly qualified
____ meets qualifications
____ could easily be brought up to qualifications
____ unacceptable
Comments:

14. List work-related strengths of applicant.

15. List area that the applicant needs to improve to assume responsibilities of this position.

16. Based on your interaction with the applicant during the interview, how would you rate the applicant's communication skills?

____ excellent
____ good
____ average
____ poor
Comments:

Would you recommend hiring this applicant?

____ yes
____ yes, with qualifications
____ No
Comments:

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